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THE CHICAGO MEDICAL EXAMINER

N. S. DAVIS, M. D., Editor.—FRANK W. REILLY, M. D., Ass't Editor.

VOL. II.]

SEPTEMBER, 1861.

[NO. 9.]

Original Contributions.

ARTICLE I.

LECTURES ON MILITARY SURGERY:

DELIVERED DURING THE SUMMER COURSE OF THE MEDICAL
DEPARTMENT OF LIND UNIVERSITY.

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LECTURE FIFTH.

TREATMENT OF GUN-SHOT WOUNDS.

Extraction of the Bullet.—The skin opposes more resistance to the passage of a ball than any other soft tissue, hence, in a large proportion of the wounded, the projectile, after having traversed the whole limb or body, is found just beneath the skin, on the side opposite the entrance. In all such cases the best way is to make a small incision, and extract the offender. If, however, the bullet is not thus favorably located it will become necessary to employ other measures for its removal. For this purpose a variety of instruments have been invented. The most common is the bullet-forceps. This is a pair of forceps from eight to fourteen inches in length, perfectly straight, and small enough to follow in the track of the projectile. The jaws should be slender and at least four inches in length, and terminate either in teeth or cup-shaped cavities, to hold the ball. The instrument is introduced

tightly closed, until the end strikes the bullet, when the blades should be separated a little, slipped over it, and withdrawn. The proper seizure, however, is often difficult. The bullet may be imbedded in spongy bone, or what is still more embarrassing, it may be lodged behind folds of fasciæ in such a way that it can only be seized with them, and therefore cannot be drawn out. In such cases, patience and perseverance will generally succeed after a time. An objection to the ordinary forceps is, that it requires to be pushed too far on either side of the ball before it will hold, and then the teeth are liable to embrace the adjoining tissues in their grasp. To evade this difficulty, several devices have been resorted to. Tiemann, & Co. have constructed a pair in which the blades are slender, and terminate each in a single round tooth, sloping forward, with no cup. The advantage of this is, that the teeth, when slightly separated, may be sunk firmly into the lead on the posterior side of the ball, and do not have to be pushed past it so as to grasp its bulge. Another instrument consists of a simple rod, terminating in a screw-point like a gimlet, which being turned into the lead a short distance, will hold fast and readily bring it away. In circumstances where apparatus must be extemporized, a common gimlet, or anything having a similar point, will often be an available extractor. In some instances, folds of cloth are driven before the ball in such a way, that by drawing them carefully out, the projectile will come with them. If a bullet cannot be reached or extracted without very extensive or dangerous incisions, it should be allowed to remain. Frequently, by the progress of suppuration and granulation, it will, after a time, be brought within reach, and if not, it often remains without injury or irritation, imbedded in the flesh. I have extracted a number of old shots from the flesh of subjects in the dissecting-room, without being able to discover any evidence of inflammation in the adjacent tissues. Other foreign bodies must be removed still more carefully than bullets, because they offer less hope of remaining innocuous in their beds. Pieces of bone, shreds of clothing, fragments of shell, splinters and stones are among the objects requiring attention.

Hæmorrhage.—In gunshot wounds, the primary hæmorrhage is usually slight. The exceptions to this rule occur when large vessels happen to be cut in the passage of the ball. In such cases the flow of blood may be very large or even immediately fatal. Simple field tourniquets, consisting of a strap, buckle and pad, should be provided in numbers sufficient for the purpose, besides those used in operations. If none are at hand at the moment, one may be extemporized by taking a cord, strap, or sash, tying it about the limb with a wad of clothing placed on the artery for a compress, and then twisting the ligature tight by means of a stick. In the Crimea, attempts were made to acquaint common soldiers with the tourniquet, so that they might, in emergency, save life by applying them to each other. The popularity of this humane project received a shock by the discovery that one soldier had applied a tourniquet *around the neck* of a comrade who was bleeding freely in that region. Fortunately he was alarmed at the symptoms of suffocation, and loosened the strap before death resulted. The persulphate, or the perchloride of iron may be applied with good effect to the bleeding vessels in some instances. While primary hæmorrhage is less frequent in gun-shot than in incised wounds, the secondary hæmorrhage is more common. This occurs generally between the fifth and fifteenth days, and during that time, not only should proper watchfulness be observed, but great care should be taken that the patient is not moved about, nor allowed to exert himself unnecessarily. In the Crimea, the simple removal of the patients from the camp before Sebastopol to Balaklava, produced a number of fatal cases. If secondary hæmorrhage occurs copiously, it may, in some instances, be checked by astringents and compression, but very often it will be found necessary to tie the artery above the wound.

Gun-shot Wounds in the Head.—Are usually fatal if they penetrate the brain. It is true that some astounding recoveries have been made, as for instance, in the well-known case where a tamping-iron was blown through the skull of a man, without killing him. Such cases serve to caution us not to relax our efforts, nor abandon, too soon, all hope of a patient;

but, nevertheless, such cures are very rare, and the usual rule is, that a bullet penetrating the brain, causes death. In wounds of this organ, it is generally not possible to extract the ball. Still a very cautious probing should be made, bearing in mind the softness of the brain-substance, and if the bullet can be found, it should be removed. To accomplish this, it will be required to enlarge the opening in the skull with the trephine, or gouge-forceps, as the orifice will not admit of the ball and the additional thickness of the forceps being withdrawn through it. After removing all foreign bodies which are safely accessible, the patient must be treated as for any other case of compound fracture of the skull. If he survives the first shock of the injury, he will have to confront the dangers of inflammation of the brain, and of *hernia cerebri*, and will need venesection, cold applications, etc., as in civil surgery.

Gun-shot Wounds of the Chest.—These are often fatal from a wound of the heart, or of the large vessels. It is not true, however, that every wound of the heart produces immediate, or even ultimate death. The case of the notorious Bill Poole, of New York, is an instance where the patient survived many days with a pistol wound in the heart. Many other instances have occurred equally striking, and in some of them when death had taken place years afterwards, from other causes, a post mortem examination has shown the heart perfectly healed and presenting a distinct cicatrix. Such instances occur only when the organ has been slightly touched by a small shot which has not seriously disorganized it. The almost universal rule is, that a gun-shot wound in the heart is immediately fatal. The treatment of the slight cases which prove otherwise, is repose, antiphlogistic, and in some instances, cardiac sedatives, such as *veratrum viride*.

Less fatal, but still fearfully dangerous are the wounds which penetrate the lungs. The bullet in these cases entering into the pleural cavity, or at least, the soft, unresisting tissue of the lung, is seldom stopped near the orifice, but either passes quite through the body, or lodges near the opposite side. No deep and perilous exploration, therefore,

should be made for it. As a general rule, these cases where the bullet passes quite through the body, are safer than those where it lodges in the lungs. Where both lungs are exposed by the wound, they at once collapse and asphyxiate the patient; but where one cavity alone is exposed, the collapse does not take place, except in certain cases. On the contrary, it is not rare to see the lung bulge, like a hernia, from a large wound at each expiration. This phenomenon wherein wounds of the living body differ from those of the dead, has been explained in various absurd ways. The truth appears to be this: The sound lung continues to draw in air without impediment, but in expelling it, it is driven out with a slight pressure, especially if the patient narrows the glottis by sighing and groaning. The pressure thus induced, forces the air into the lung on the wounded side, and expands it at each expiration, which it only partially contracts at each inspiration, thus keeping up the contact between the viscus and the pleura. If the patient bleeds very freely, it will be expedient to lay him with the wounded side down, if he can tolerate the position, in order to allow the blood to drain out of the chest. If there is evidence that the lung is wounded, it will not be safe to close the wound, even after the hæmorrhage has ceased, as in such circumstances the air sometimes accumulates in the pleura to such an extent as to greatly distress the patient. The mechanism of the accident seems to be this: The wound in the lung may be valvular in form, in which case every expansion of the chest sucks air freely into the pleura from the bronchi, while the contractions, owing to the valve shape of the wound, are not able to expel it. If, now, the external wound be tightly closed, there is no place of escape left, and the air pumped into the pleura will accumulate at each inspiration, until its pressure threatens asphyxia. In a very few cases there may be troublesome hæmorrhage from an intercostal artery. If it does not cease upon pressure, it may be easily checked by ligation, either at the wound, or by cutting down posterior to it, and carrying a curved needle under the vessel. Some have recommended passing a ligature around the rib, so as to compress the artery against it, but this is

unnecessary and dangerous to the pleura. The subsequent treatment consists in abating the inflammation of the lungs and pleura, by appropriate measures, bearing in mind that the patient will probably have to endure a long and exhaustive suppuration, and hence, he should not be bled, unless the necessity is very urgent. In the suppurative stage, the strength must be supported by generous diet and tonics, and in a portion of the cases, you will have the satisfaction of carrying your patient through to a complete recovery.

Wounds of the Abdomen.—These are quite as dangerous as those of the chest. In many cases the hæmorrhage from the large vessels is the cause of death, while in others the perforation of the hollow viscera and the subsequent peritonitis produce more slowly the same result. The bullet generally, cannot be found. It does not necessarily follow that a ball entering the abdominal walls, has penetrated the cavity. It may glide around in the interfascial or in one of the intermuscular spaces, and do but little injury. If it enters the cavity, there is still a bare possibility that it may have dropped among the viscera without wounding them. Shot have been known to penetrate the intestines, and be discharged with the fæces without fatal results, and the well-known case of Alexis St. Martin shows that a pistol shot may lay open the stomach without death. In spite of exceptional cases, however, most of these wounds are fatal. There is comparatively little that the surgeon can do for the wounded man, except in a few rare cases. I can only say therefore, that the treatment is the same as is laid down for your guidance in works on civil surgery. In a very few cases you may be able to save life by making an artificial anus.

Wounds of the Pelvis.—Gun-shot wounds fracturing the pelvis, and wounding severely its viscera, are always, or nearly always fatal. A few cases of wounded bladder have recovered. If the urinary organs are injured, it will be requisite to keep a catheter in the bladder, and if urinary infiltrations occur, free incisions must be made to evacuate the fluid.

Bayonet stabs of the trunk are less dangerous than bullet wounds. The viscera, particularly the intestines, often glide

away from the blunt point of the weapon, and allow it to pass without injury. They are to be treated on general principles.

Gun-shot wounds of the Extremities.—These afford the best field for the exercise of skill and judgment by the surgeon.

If the wound be simple, not involving important bones, nerves or vessels, it may be treated with cold-water dressings. If it is more serious in its nature, the question of amputation presents itself for immediate decision. It is necessary that the army surgeon be prepared to make up his mind on this point with promptness. I shall therefore endeavor to condense the principles involved, into a simple and easily remembered form:

1. Owing to the fact that the wounded must often be transported in wagons, and in various other respects, can be less perfectly cared for, than in civil life, some limbs must be amputated, which a private practitioner would save.

2. It will be justifiable to go further in conservative efforts to avoid amputation in the superior, than in the inferior extremity, because the limb being smaller, suppuration and gangrene are less fatal, and the final results of a secondary amputation are less to be dreaded.

3. Simple flesh wounds, simple fractures, and moderately severe compound fractures do not require amputation.

4. If a moderate compound fracture be accompanied with a laceration of the artery, while the vein and nerve are safe, amputation is not required.

5. Compound fractures of large limbs with extensive destruction of soft parts, especially of the nerves or vessels, usually require amputation. Hamilton says, and others agree with him, that compound fracture of the femur, even if the nerves and vessels are safe, requires amputation; but the mortality after amputation of the thigh is so fearful in military surgery, that I advise some discretion in applying the precept.

6. Gun-shot wounds of the knee and ankle joint require amputation. Those of the elbow, wrist and shoulder, require amputation or resection. Those of the tarsus generally require amputation.

7. As all military amputations at the hip-joint have been

fatal, hitherto it will be best in gun-shot fractures of the superior extremity of the femur, to prefer excision of the head, which is a far less severe operation.

8. Wounds of the fingers and toes may be treated as in civil surgery.

The Time of Amputation.—There is a period of a few hours immediately after the injury when the patient is under the influence of the "shock." If the shock be severe, no effort should be made to amputate until reaction occurs.

After the shock is over, the question arises, whether primary or secondary amputation is to be preferred. Primary amputation is that which is performed during the first stages of the injury, that is, within the first days. Secondary amputation is that which is delayed until the period of suppuration sets in.

After considerable discussion, the accumulation of experience gives the following precepts for your guidance:

1. In proportion as your hospital approaches the condition of civil practice, just in that proportion you will be able to give preference to secondary amputation.

2. In proportion as the hospital is overcrowded, and illy ventilated, early amputation will be more necessary.

3. In injuries of the upper extremity, primary amputations are to be preferred; but in those of the lower extremity, the preference is less strong. The results of experience are that in military surgery, primary, and in civil surgery, secondary amputations are to be preferred for the lower extremities.

4. In certain cases, as where the limb is quite destroyed by a cannon ball, primary amputations are to be preferred, even in the upper extremities.

5. In small limbs, as fingers and toes, primary amputation is objectionable, if delay furnishes any hope of saving the part, because the accidents of suppuration and gangrene in these cases are not seriously dangerous, and therefore may be braved.

The Place of Amputation.—The rule in military, as in civil surgery is, to amputate as far from the body as the condition of the limb and the facilities for forming a good stump

will permit. It is found that the nearer the body the operation is made, the greater is the mortality. Thus in the Crimean war, the mortality after the amputations of the smaller toes was four per cent.; after the large toe, sixteen per cent.; after amputation of part of the foot, twenty-five per cent.; after amputation of the leg, fifty-five per cent.; amputation at the lower third of the thigh, fifty-six per cent.; at the middle third, sixty per cent.; at the upper third, eighty-six per cent.; at the hip joint, one hundred per cent.

All cases of amputation of the hip joint, died without exception. On this account, I advise that no amputation be performed at that joint, if there is the least hope of life by any other treatment. If the head of the femur is shattered, it will be much safer to excise it, which is an operation of comparatively little danger; but the limb should not be cut off if there is the least chance of its preserving its vitality.

In other respects the principles for selection of location are the same as in civil practice.

Mode of Operation.—If great haste is required, the flap operation should be preferred, but if time is afforded, and if the patients must be transported far in wagons, the heavy flaps of that operation are objectionable. They shake, jar and tear out the sutures and adhesions by the jolting, and hence the lighter flaps of the circular method are more successful.

Dressings of Gun-shot Wounds.—The wounds being lacerated and contused, generally inflame and suppurate somewhat extensively, which fact led former observers to attribute a poisonous effect to the gunpowder. If amputation is not required, the wound after cleansing, is best treated by cold water dressings. These may be applied as ice bags, as wet cloth, or by irrigation. This mode of treatment will be found extensively available and of immense value during the first few days after the injury. After that, simple cleansing and dressings with cerate or lint are required. It is of the utmost consequence that *careful and frequent cleansing* be attended to, as the decomposing discharges of great numbers of wounded in a hospital emit poisonous exhalations, which give

origin to hospital gangrene and erysipelas. In all other respects the care of these wounds is as in ordinary surgery. In this matter, the welfare of your patients will depend not so much upon brilliant skill in using the knife, as upon your watchfulness and industry, and determination in enforcing cleanliness.

ARTICLE II.

CASE OF EXTRA-UTERINE PREGNANCY.

CONTINUING FOUR YEARS.—FETUS REMOVED BY GASTROTOMY.—RECOVERY.

By E. P. COOK, M. D., of Mendota, Illinois.

Mrs. Getchell, the subject of the following report, below the medium height; thin, never more than ninety-five pounds; of a delicate organization; highly excitable, nervous temperament; age twenty-eight years. Was first called to see her February 27th, 1857. Supposed herself to be in her third pregnancy; had menstruated last, October 27th, 1856. Had had symptoms similar to those occurring during her previous pregnancies—cessation of menses, morning sickness, swelling, soreness and secretion in breasts.

The day previous to my being called, had exerted herself rather more than usual, and during the night had pretty severe periodical pains in lower part of abdomen, with some hæmorrhage. This becoming worse, I was called. From the history of her case and present condition, I was at once led to think that she was pregnant, and unless uterine action were immediately arrested an abortion would be the result. Resorted to the ordinary treatment in such cases, and in the course of forty-eight hours the flowing had ceased, but still some pain, which continued more or less for several days. Rest was advised, and the horizontal posture as much as possible. At the expiration of the fourth month she thought she felt motion or the quickening, and declared that she felt more or less movement continuously, as usual in pregnancy, which was also affirmed by her husband; the movements being quite

distinct, though not so strong and frequently perceptible as they had been in her previous pregnancies.

Up to July 26th, which would make nine months, the abdomen gradually and uniformly enlarged, and at the expiration of that time was about the usual size of a woman of her development at full term. We would observe here that the lady was not seen by us during the interval between the period of quickening and after the expiration of the full term. From her statements we learned that she suffered rather more than usual the common inconveniences to which the pregnant female is incident; but there was no material deviation from her usual general health, nor any circumstances that excited apprehension of a serious character in her own mind as to her condition and the final result.

July 26th.—In the absence of the writer, his father, Dr. W. L. Cook, was called to see her, as she supposed herself to be in labor. Had considerable show, and frequent severe pains, from the irregularity and character of which, he soon became satisfied that she was not in actual labor, and gave her an anodyne; the pains soon ceased. She ran along then without change in size, feeling no movement, but suffering from pains (which she compared to the pains of the first stage of natural labor) occasionally, but most severely at the expiration of every month. The general health improved, and she was again able to take charge of her domestic affairs.

In September, 1857, the catamenia returned, and she continued perfectly regular up to the time of operating. The case did not then receive any special attention from me until January 31st, 1858. Mr. and Mrs. G. becoming still more uneasy in reference to her condition, I was requested to call, and if possible, to give a positive opinion in reference to her case, and the better course to be pursued. I would here remark that up to the expiration of full term, I had scarcely any suspicions that the case was not one of ordinary pregnancy. From its continuance, however, without any material change, the case became one of peculiar interest. Condition January 31st, 1858: Looked very well, countenance cheerful, in usual flesh, appetite good, bowels regular, menstruates every month,

does not suffer as much at that period as she formerly did, occasionally has some pain in the lower part of her abdomen—more at night. No change in size since time at which she was last seen; enlargement of abdomen uniform and elastic; could get the outlines of the tumor distinctly, resembling very accurately the form of the impregnated uterus at full term. By carefully comparing the enlargement to either side of the mesian line, it was evident that the greater bulk of the tumor lay to the left side, but the difference not very marked. No unusual sensitiveness on either pressure or palpation. Dull sound on percussion; cannot discover any fluctuation; change of position of body does not change position of tumor; careful examinations per vagina and rectum, did not reveal anything worth noting, except the encroachment of the tumor upon the superior border of the pelvis, and forcing the uterus, etc., low in its cavity; could not by any proper means change position or elevate it in the least. Palpation or any manipulation externally over the abdomen, would not communicate to index finger in vagina a sense of fluctuation.

February 16th, 1859.—No perceptible change in her condition in any respect since last notings; would see her occasionally, and learn that she "was quite smart," as well as when in her best health previously. For the last two weeks has been suffering considerably with pain through the lower part of her abdomen—left side—and for several nights extremely, with pains resembling first stage labor pains. Re-examined the case carefully, nothing discovered worth the noting; to take anodynes *pro re nata*. Her case ran along thus during the spring and summer of 1859, without materially changing, excepting the increase in her suffering—almost constant pain, and the degree of mental anxiety about her condition, producing a gradual loss of flesh and physical strength.

In September 1859, through the influence of friends and others, Mrs. G. was prevailed upon to visit Wisconsin, with the assurance that a *radical cure* of her case would then be effected.

She returned to Mendota, Feb. 1, 1860, shortly after which she was again seen by me, and from her I learned that her

condition continued about the same as at the time of leaving, until about Dec. 1, when it became evident that her case was undergoing some change,—her abdomen becoming fuller, and at an examination made by two or three physicians, fluctuation was found to be quite distinct. Being satisfied of the presence of fluid in the abdominal cavity, tapping was done, and from three to three and one-half gallons of fluid of a sero-purulent character evacuated.

She recovered fully from the tapping in a few days, and was so much relieved, temporarily, as to be flattered with the hope that she was *radically cured*.

The operator informed her that, on introducing a probe through the canula into the cavity, that it came into contact with *bones*, and that *hair* and small pieces of cartilage were found in the fluid evacuated.

Condition, Feb. 3, 1860.—General appearance better than when last seen; is very cheerful; thinks she is almost well; abdomen much less distended, but circumference over the most prominent part of the tumor only three inches less than it was eight months since, but the enlargement does not extend so high in the abdomen; fluctuation quite distinct; on palpation to the left of the mesian line, just below the umbilicus, a sensation is communicated to the fingers, which I can readily think might be produced by some solid body floating or lying in a sac containing fluid.

It was very evident that the sac would soon be again distended by a re-accumulation of fluid, and candor required us to so inform the patient. Uniformly, but slowly, the accumulation of fluid progressed, and with its increase, she again began to suffer, her pain increasing with the increased distension; loss of rest and appetite, with emaciation resulting, and telling rapidly on her delicate organization. By June 3rd, her condition was such as to make it important, that either the fluid be re-evacuated, or an operation instituted, which would terminate the case fully and finally in either a perfect recovery or death.

The patient and friends preferring that she should be tapped rather than take the risk of gastrotomy—that being presented

to them as the only alternative beyond the temporary relief that might be afforded by repeated tapplings. They, however, decided that it should be left to my judgment, and those whom I might associate with me as assistants and advisers.

All necessary preparations were made, and on June 3, in the presence of, and with the assistance of the neighboring physicians, a trocar was introduced in the mesian line of the abdomen, about two inches below the umbilicus, and two and one-half gallons of sero-purulent matter evacuated. A sound was then introduced through the canula into the sac, and with all the care and perseverance thought advisable, the sound could not be made to reach any bone or bones. Foiled in this, we hastily determined to defer any further surgical procedure. Removed the canula, covering the trifling wound made in the integument, with lint and adhesive straps, over which put compress and bandage.

In a few days she was again up, very comfortable, taking food generally, and her system recuperating rapidly. But a few weeks of rapid secretion by the sac, placed her case again where it had been twice previously. To abbreviate, we will state that it was necessary to tap again:—Aug. 7, Sept. 5, Sept. 30. At the third tapping, tincture of iodine was injected into the cavity, with no effect, except to render convalescence sure. It will be observed that the interval between the several tapplings became less as the case advanced; this is explained by the fact, that secretion went on much more rapidly after each tapping, and the temporary relief to her sufferings was much shorter—a less degree of distension of the sac being required to produce it again, yet, at no time was less than two gallons of fluid removed. By the first of October, her almost constant suffering, loss of rest, and the excessive drain on her system, she was so far succumbing, as to make it very evident that life would soon be terminated. She now became very anxious to avail herself of the only hope for relief that could be offered, and though the formidable nature of gastrotomy was candidly presented to her, she still insisted that it should be performed, at the same time saying, with all the confidence of which poor suffering humanity is sometimes capable, that it

would certainly cure her, *that she would live and not die.* It then clearly became my duty to give the patient the benefit of an operation for the removal of the cause, and not simply the effects as had only been done previously.

A surgeon's course, under such circumstances, becomes a moral question of no small importance. With the conviction that a patient should not be allowed to go through a life of suffering to inevitable death, when there is a possibility that an operation may result in a restoration to health, it is clearly his duty to do all he can for the poor creature reposing confidence in him. This matter was fully considered and acted upon in this case. Having determined on the operation, surrounding conditions and the state of the patient were made as favorable as possible, waiting until she should recover from the last tapping, and the sac had time to be pretty well filled again. Accordingly, every arrangement having been made, on the afternoon of October 14, in the presence and with the kind assistance of Drs. Jos. W. & F. H. Edwards, Corbus, Gould, and Dr. W. J. Cook, the operation was performed.

I had determined, with the advice of the physicians named, to make the abdominal incision, evacuate the fluid, remove the fetus, if such we found, and attempt the removal of a part or the entire sac, if its attachments were not such as to render it impossible or inexpedient.

The atmosphere of the room was brought to a temperature of about 70°, and kept moist by the evaporation of water from kettles on the stove. The patient was placed on a bed in the middle of the room, with her shoulders well raised, and a sheet applied as a diaper. She was then put under the influence of chloroform, and I made an incision in the *linea alba* about five inches in length (being just below the umbilicus, and extending toward the pubis) down to the peritoneum. The sac was then punctured, and from two to three gallons of fluid of the same character as that previously removed, evacuated, emptying the sac completely. The adhesions of the sac to the peritoneum at the place of the incision were easily broken down, and the hand passed into the cavity of the abdomen above the sac, the greater omentum was found, partially

adherent to the superior surface of the sac; and as the hand was passed further down posteriorly and laterally, the sac was found so firmly adherent in the left iliac fossa, and over the lower lumbar vertebra, and also, partially in the right illiac fossa, as to render it impossible to remove it without using the scalpel, and dissecting it out, which we had determined, previously, not to do, of the propriety of which determination we were more fully convinced than ever. The incision in the sac was then enlarged, and the hand introduced, and the fœtus (weighing five pounds) removed without any difficulty; the fœtus was entire and in a perfect state of preservation, excepting scalp and bones of the cranium; the softening of the scalp and separation of the superior bones of the cranium was such, that on lifting out the fœtus, they remained in the bottom of the sac; they were carefully removed, but no trace of either cord or placenta were found. The cavities of the sac and abdomen were then carefully sponged out, (there having been in all, not more than two and a half or three ounces of blood lost,) no arterial branches requiring the ligature. After careful sponging, the incision in the sac and abdomen were brought together conjointly by passing large steel needles through at each extremity of the incisions in both sac and abdomen, the needle entering the integument about a half-inch from margin of wound, passing obliquely through the abdominal wall, taking up both lips of the sac, (including peritoneum,) and emerging through opposite edge of incision to that at which it had entered. Around each needle were thrown several turns of the twisted suture. Six sutures were then put in, three on each side, which brought neatly together the free edges of wounds in sac and abdomen, leaving an opening from the surface two inches long, communicating with the cavity of the sac. By thus dressing it, the peritoneal coverings of abdominal walls and of the sac at the margin of the incisions were brought firmly and perfectly in contact, everting and bringing the lips of the sac to the surface, isolating perfectly the cavity of the sac from that of the abdomen, and leaving a fistulous opening communicating freely with it. The surface was then dressed with lint and several strips of

adhesive plaster; over all a light compress and bandage, and water dressing; operation completed at 2½ o'clock p. m. By the time the dressing was completed, had rallied partially. Pulse 100, very feeble; complaining frequently of a severe burning pain at the seat of the incisions. Gave her immediately after the stupefaction from the chloroform had passed off, 1 gr. sulph. morphine, each hour to take ½ gr. At 5 o'clock, pulse 110, more volume, lower extremities cold, vomited freely shortly after the operation was completed, not since. Nine o'clock p. m. Pulse 110, general surface of body and limbs warm; reaction complete; suffers from frequent and severe pains which she compares to *after-pains*; has vomited again; continued the opiate freely. Twelve o'clock m.—pulse same; has vomited again; is more comfortable, but still those pains return occasionally; very little sleep; has evacuated 4½ urine; *via naturalis*. Eight o'clock a. m.—Since midnight has slept nearly three hours; vomited twice; evacuated ½ pint urine; pulse 95, weak; expresses herself as feeling very weak and faint; general surface normal temperature; but little pain; takes beef tea, ice, brandy frequently in small quantities. Eleven o'clock.—Continues to vomit occasionally; sleeps considerably; apparently never prostrated; pulse 115; continue to give opiates at intervals of from two to six hours, and in quantities, varying from ¼ to 1 gr. sul. morphine, designing to keep her system under their decided influence. It will be remembered that from habit, her system tolerates quantities that, under ordinary circumstances, would be enormous. Gave her hydrocyanic acid, without any apparent effect in controlling the vomiting.

One o'clock p. m., 15th Oct.—No material change in any particular; vomits frequently; left Dr. Jas. Edwards in charge of the case.

Seven o'clock p. m.—Has vomited three or four times since 1 o'clock, most of the time resting very comfortably; describes her sleep as being very refreshing; has evacuated urine again; pulse 125, full, skin hot, free from pain. Up to this time there has been no tympanitis or tenderness of her abdomen.

October 16, 7 o'clock a. m.—Pulse 115, not so full; less heat of surface, and less thirst; rested well during the night; no more vomiting; complains of an itching sensation over whole person; dressed the wound, looks well, beginning to suppurate, opening into sac, patulous, whole wound contracted to less than three inches in length.

Seven o'clock p. m.—No material change; pulse not so frequent, has ranged during the day from 95 to 110; sleeps considerably.

4th day, Oct. 17, 8 o'clock a. m.—General condition the same; rested pretty well last night; pulse from 120 to 105 this morning; evacuates (every three to four hours,) with but little difficulty, from 4 oz. to $\frac{1}{2}$ pt. urine; takes beef-tea, rice-water, tea, crackers, etc., in small quantities, frequently.

5th day, Oct. 18.—For the last three days there has been a decided degree of febrile excitement, (with some delirium,) evidently the result of some inflammatory action at the seat of the operation, though there is no evidence as yet, of the occurrence of general peritonitis; abdomen but slightly tympanitic or tender; dressed the wound this morning—looks well; suppurating freely; discharging some from the sac. Takes a pill sulph. morphine, $\frac{1}{2}$ gr. every six hours.

6th day, Oct. 19.—Rested well last night; pulse 105; wound discharging freely; is very tired of beef-tea; discontinue it, and substitute the broth strong; the mind has become very child-like; some delirium; debility more marked; pulse 130.

7th day, Oct. 20.—Pulse 110; debility more marked than ever; wound and sac discharging very freely; fetor very unpleasant; abdomen more tympanitic and tender, particularly to the right of the mesian line; bowels were evacuated freely by enemas of beef broth. For two days, has suffered much from an aphthous affection of the mouth and throat; put her to-day on the use of wine-whey; chlor. potassa and tannin as a gargle for her mouth; to take a pill every four hours, sulph. quinine 1 gr., pulv. opium, $1\frac{1}{2}$ gr.; to apply over dressing to wound, cloths saturated with solution chlor. lime.

8th day, Oct. 21.—Complains less of pain in right side of

abdomen; less tympanitis; pulse 100; mouth and throat very sore; the condition of mouth and throat is identical with that of stomatitis materni; this morning removed the pins; union firm and perfect; length of incision not healed, 2 in; fistulous opening into sac, $\frac{3}{4}$ in.

9th day.—Pulse ranging from 90 to 95; wound suppurating freely; not so much fetor; but little tympanitis; right side of abdomen very tender, and complains much of a dragging pain there; exacerbations of the amount of arterial excitement occur during the afternoons and fore part of nights.

10th day, Oct. 23.—Pulse 100; more cheerful; thinks she will recover; takes more nourishment; oyster broth added to her bill of fare; rested well last night; right side of abdomen less painful and tender, but more tympanitic than was yesterday; secretion of urine and its evacuation the same as previously noted; is stronger, can help herself more. Since removing the needles, the wound has gaped considerably; fistulous opening one inch long—communicating freely with interior of sac, from which there is a free discharge of foetid purulent matter; surface of wound mostly granulating, with a very little sloughing at the lower extremity; dress with lint and adhesive straps, over which apply light compress and flannel bandage, over all apply cloths frequently wrung out of chlor. lime water. Directed an enema of beef broth, the same as was done three days since.

11th day, Oct. 24, 8 o'clock p. m.—Pulse 120; restless; more delirium than has ever been; extremities cool; abdomen less tender, more tympanitic; takes less nourishment; mouth and throat the same; stimulants to be increased; cold to head, warmth to extremities.

12th day, Oct. 25.—Rested better last night than was expected; bowels evacuated freely, after repeated injections; the difficulty of the mouth and throat is increasing; takes alternately with the pills of opium and quinine, comp. tinct. bark, with chlor. potassa in solution.

13th day, Oct. 26.—Mouth very sore; deglutition difficult and painful; complains of a burning sensation and feeling of constriction along the course of the oesophagus, and also to

some extent in the epigastric region; has vomited several times to-day. The diseased state of mucous membrane is evidently extending itself down along the course of the œsophagus, and invading the stomach. The mucous membrane of the mouth and throat is peeling off extensively, leaving the denuded and red surface exposed, which is very sensitive. Pulse good and only 100; general condition aside from the difficulty referred to, good; temperature natural, but skin has always been dry; the wound presents a good appearance; edge granulating slowly, and contracting in every dimension; free secretion of semi-purulent matter from sac, but little odor; the sac still continues to a limited extent, to imitate its old secretory function.

14th day, Oct. 27.—Bowels evacuated naturally, twice to-day; continues to take powders, quinine et morphine every six hours; as a local application to mouth and throat, chlor. potassa in infusion of hydrastis canadensis; wound doing well.

15th day, Oct 28.—If it were not for the severity of the affection of her mouth, throat and œsophagus, her condition in every other respect would be good. The wound is looking well. Deep in the wound lie the lips of the sac. It has been gradually retracting, until now it is seen at a depth of nearly one inch from the surface of the abdomen, leaving a cupped depression at the seat of the original incisions.

Deglutition very difficult and painful; complains most of a severe burning pain over the region of the middle third of the œsophagus. In all probability the surface is there ulcerated. It is only with considerable effort that she can open her mouth to admit light enough to examine the fauces. The epithelial layer of mucous membrane peels off in large flakes, leaving a red and inflamed base, upon which a rapid exudation occurs, which becomes organized into a pseudo-membranous formation, to be rapidly thrown off, to be succeeded by the same again. The only ulcerated surface that can be seen, is at the angles of the mouth. A slight diarrhœa now existing; pulse ranging from 120 to 130—feeble; is restless; mind wandering; has been harrassed by a very annoying hacking cough for two or three days; the quinine and mor-

phine to be continued; the potassa discontinued, substituting mur. tr. iron, both for its constitutional and local effects, 20 gtt. to be diluted sufficiently, and given every four hours; to take all the concentrated nourishment possible.

16th day, Oct. 29.—Is more comfortable; complains less of her throat; pulse from 110 to 120; she thinks that the iron is helping her very much, and it unquestionably is having a good effect; the mouth and throat is less sensitive; the exudation is less in amount, and is thrown off much more easily.

18th day, Oct. 31.—Appetite improving; mouth and throat better; deglutition less painful; in the evening, was sitting up in bed, taking a cup of tea and a soft boiled egg; the abdomen has been in the least tympanitic for three or four days, very little tenderness remaining; is very cheerful, and thinks she will certainly get well; bowels are evacuated *via naturalis* every day; no difficulty in urinating.

Nov. 1, 19th to 25th day,—since the operation.—Mouth and throat have continued to improve ever since she began the use of the tr. ferri chlor.; generally rests quite comfortably, and takes nourishment freely. For several days, though the wound has in other respects been doing finely, yet over its entire free surface, and extending down into the cavity as far as can be seen, there has been a pseudo-membranous exudation found, resembling precisely the appearance of the mouth and throat, as far as can be seen. She has complained very much of the wound's smarting and burning, causing so much nervous excitement, as to make it necessary to return to the use of the sulph. morphine, which had been discontinued for several days.

25th to 30th day, Nov. 6 to 11.—For the last six days her condition has not been so good as it was previously, and she is evidently losing, instead of gaining; debility more marked, and is becoming more emaciated; takes less nourishment; rests about the same; is desponding, and begins to think at times that she cannot recover; mouth still continues sore, but is much better; no difficulty in swallowing; skin generally hot and dry; suppuration continued quite free from the sac;

pus of a normal character; some foetor; external wound gradually contracting, but opening into sac is larger, $1\frac{1}{2}$ in. long. A probe can be passed down three inches towards the right iliac fossa, and not at all to left of mesian line. At this stage of her case, the prospects are fearfully against her final recovery; she continued, however, as generous a use as possible of concentrated nourishment,—stimulants, opiates, etc.

Nov. 16.—Since last notings there has been a gradual improvement in her condition in every respect: takes food freely; rests better at night; does not complain of the wound; is stronger; bowels in good condition; external wound growing smaller slowly; cavity of sac suppurating freely; pus very thick; probe passes to a depth of $2\frac{1}{4}$ in. now. Have discontinued all medicines now, except the occasional use of *il opii* et fluid ext. *valerian*.

From this on she slowly, but uniformly, improved; becoming stronger, more comfortable, etc. The discharge from the sac decreasing in amount gradually, and by March 1, 1861, she was again able to take charge of her domestic duties.

May 1, 1861.—Her health is as good as it ever was; in her usual flesh; enjoys life and its pleasures as much as she ever did. In reference to the sac now remaining in her abdomen, we would observe that there still remains a very small fistulous opening at the bottom of the depression at the seat of the original incisions, through which a small probe can be passed to the depth of an inch, and that from it there continues to exude a trifling amount of pus. Through the walls of the abdomen the sac may be easily felt, about the size of the closed fist, firmly fixed just below the umbilicus, extending down to the left iliac fossa, the greater bulk to the left of the mesian line.

REMARKS.—It will be a matter of interest to refer briefly, yet more at length than has been done, to some of the features of this interesting case. It may appear very clear, since the history of the case is now perfect, that its *diagnosis* was an easy one at any stage after the time at which I was first called, yet such was not the case. It was with difficulty,

and only after a protracted observation of the case, that I became fully satisfied as to its nature. It is true, that up to the expiration of the period of natural pregnancy, I had no suspicions that the case was not one of ordinary pregnancy; and still, I had considered the case as such, simply from the circumstances attending it at the time when I was first called, and the statements of the lady herself in reference to the movements of the fœtus subsequently. After the expiration of the nine months, and the case remaining without change, it continued to become increasingly interesting. For a while I doubted the fact of there ever having been fœtal movement, not from any want of confidence in the lady's veracity, but thought she might have been deceived herself. We are well aware that, occasionally, in cases of hydatinous or sarcomatous moles, and under other peculiar circumstances, patients have construed certain sensations felt, to be the result of fœtal movements. Yet, after all, there could be no diagnosis of the case made to which there were so few objections as that of considering it as one of *extra-uterine pregnancy*—the evidence confirmatory of such diagnosis accumulating as the case advanced.

Some of the features of this case are of such interest, and one at least peculiarly so, as to demand more than a passing notice (yet, a desire to be brief shall prevent us from reviewing them minutely). We here refer to the fact that after the fœtus had been carried in its *provisional uterus*, or sac proper, without any change after the expiration of nine months, until more than three years had passed, then the lining membrane of the sac took upon itself a secretive function, and gave rise to a state of things resembling very much a case of ovarian dropsy; and repeated tappings were necessary. We have not been able, in all our researches into the history of cases of extra-uterine pregnancy, to find a parallel case in this particular. At the time the embryo secured its primitive connection where it had been arrested and developed in its progress from the ovary to the uterus, indicated by the occurrence of symptoms identical with those occurring in connection with an abortion, there was no sensation of tearing or

giving way of any of the structures in the abdomen or pelvis. At this time, undoubtedly, the primitive cysta of the ovulum was ruptured, without the severing of any large vessel; the internal hemorrhage very moderate; a maternal relation still sustained to a degree compatible with the future development of the ovum; ovum lodging in the peritoneal cavity, giving rise to slight peritoneal irritation, yet within such limits as not to cause general and severe inflammation thereof.

At the time the rupture occurred, by sympathy, the contracted fibres of the uterus were thrown into action, causing pain, and by the same, detaching the decidua, whence the blood had its origin.

At the expiration of the normal term of pregnancy, the foetus ceased to live, after which, for one year it was carried, the woman enjoying as good health as usual. During the next year and a half, we see the endeavors of the female economy to get rid of its burden. In December, 1859, this is first observed in the amount of abdominal distension, and by the latter part of January, 1860, it becomes very evident that this was owing to the presence of fluid, for which tapping was done. From that time until date of the final operation,—at five different tapplings, and inclusive of the amount of fluid removed at the time of operating, there was from 16 to 18 gallons of fluid removed.

The occurrence of the pains, shortly after the completion of the operation, and their persistence for several days is explained by the fact of the muscular character of the sac, and they were unquestionably the result of its periodic contraction, as occurs with the uterus. It is an interesting question as to what might be the consequence of the occurrence of a future pregnancy. The position of the sac and its extensive and firm attachments, are almost, if not entirely, such as to make impossible the rising of the impregnated uterus out of the pelvis, as it develops, and yet all are aware of the surprising distensibility of the female organism. The favorable result in this case is, no doubt, attributable to a variety of circumstances, not the least of which was the determination and confidence

on the part of the patient that she should recover; and the possession of an organism with such vital tenacity, that nothing short of *articulo mortis* itself would be sufficient to forbid hope. And yet the successful result was in consequence of allowing the sac to remain without forcibly attempting its removal, and the immediate and perfect union of lips of sac to abdominal walls, and establishing a fistulous opening, communicating externally.

I would here express my obligations to Dr. Jas. W. Edwards of this place, for the kind and valuable assistance rendered me during the progress of this case And also to Dr. Jas. N. Niglas, of Peoria, and Dr. N. S. Davis, of Chicago, for the interest they have taken in its progress, and valuable advice given me.

ARTICLE III.

ACTION OF OPIUM ON THE GENITO-URINARY ORGANS.

By B. WOODWARD, M. D., Galesburg, Ill.

Though opium has been known as a therapeutic agent from the earliest ages, it is not yet fully understood; and as the relations of pathology and therapeutics are being studied, new forms of its action are being developed. Almost all writers on *Materia Medica* unite in saying, "that opium arrests all the secretions, except those of the skin." This is the general belief; and I had taken it for granted, till about three years ago, when an accident made me doubt the assertion, so far as the action was concerned, and subsequent experience has convinced me, that under certain circumstances, instead of arresting, it increases this secretion in a remarkable manner. Having occasion to take a dose of morphine, I was struck with the largely increased urinary secretion, and its clear, limpid character. In order to test the matter, I next day measured all the urine passed in 24 hours, and proved it to be xxxviii , specific gravity 1014. The next day after urinating, on rising from bed, I ate and drank as usual, and took a third of a grain of sulph. morphia, at 7, 10, 1 and 4 o'clock,

and measured all the urine passed at 9 p. m., and found it to $\bar{3}$ xlv, very limpid, specific gravity 1003. This experiment was repeated carefully four times, at intervals of five days, and each time proved a corresponding increase in quality, and lowering of specific gravity. Since that time I have several times repeated the experiment, and always with the same results. Lest this should be the result of some idiosyncrasy, I subjected five young men to the experiment, and with four of them, obtained a very large increase, and lower specific gravity. With one of them, on two trials, I found no perceptible increase or diminution of the quantity, but a marked lessening of specific gravity. It is proper to say, that I have not obtained the same results with opium itself, as with its alkaloids, but there has been no difference, whether the muriate or sulph. morphia were used. Acting on these hints, I have repeatedly used morphine in irritable conditions of the nervous system where a diuretic was required, and have always been pleased with the results. These are the class of cases requiring a sedative action, and in which veratrum viride acts on the kidneys. Opium then, appears to be a sedative diuretic, causing an increased secretion from the kidneys, by its relaxing properties. I think it will be found that in many cases of disease, the urinary secretion is arrested by the state of nervous tension, which has been superinduced, and that instead of a resort to stimulant diuretics, sedatives will relax the tension, and allow the secretion to be restored. This sedative action must be brought about by such agents as shall act on and through the nervous system, and not those which act on the blood, (*e. g.* calomel or antimony.) There is a vital difference between sedation of the nervous system and depression. Depression is often caused by nervous irritation, which wears out the powers, and which is successfully combatted by sedatives, which allay the irritation and give the system a chance to recuperate. Whether by the use of opium the solid contents of the urine are increased, could only be determined by an analysis of all passed in a given time; but the evidence of my own is, that they are not. Where there is evidence of a poisoning of the system by retention of excrementitious

matter which should be eliminated by the kidneys, I have found the better plan to be, to combine morphine with a saline diuretic. Retention of excrementitious matters, produces nervous irritation, and this leads to true depression. Another marked action of opium is as an anaphrodisiac. For obvious reasons it is difficult to settle this satisfactorily, but in the cases of several women whom I knew to be opium eaters, inquiry of the husbands has elicited the fact, that in them, the sexual desire was almost extinct; and several men, of whom I have inquired, who used much opium, have acknowledged the same to be true of them. This may account for the impunity, so far as health is concerned, with which Turks and other Asiatics, who all use much opium, keep large numbers of women in their harems. Their lives are spent in a dreamy voluptuousness, while, in fact, sexual appetite may not be largely indulged. The testimony of travelers is, "that large families of children are rare among the wealthy orientals who keep extensive harems." The testimony of a prostitute on this point was, "that she was obliged to use opium freely, so that she should be merely passive, while admitting men to her embrace, or she should have been worn out." I could give the cases of several men for whom I have prescribed opium, to enable them to overcome their lustful propensities, and always with benefit, as it held the desire in abeyance, and enabled them to bring their moral powers to bear. In the case of a most estimable woman, now dead, who, ten days after accouchment, became the victim of uncontrollable sexual desire, amounting, almost, to nymphomania, full doses of morphine by the mouth, and solutions of morphine to the parts, acted almost like a charm, and restored her to herself.

I conclude then that opium has a direct action on the nerves, governing the urinary and generative organs.

TIN FRACTURE SPLINTS.—For a long time, we have been in the habit of using tin instead of wood for fracture splints. This material is so far superior to all others used for the purpose, that we are greatly surprised that manufacturers of patented splints have never adopted it instead of wood. It is

lighter, stronger, far cheaper, and can be moulded into any desirable shape by the surgeon. Thus, as often the case in compound fractures, it being desirable to have some particular part exposed, the surgeon may go to any tinner, and procure, at very trifling expense, the splints, with the necessary openings, which cannot be the case with the use of wood. Any tinman can easily make the splints, but few workmen can make them properly shaped of wood. We would particularly commend them to young practitioners, who may not be able to equip themselves with the more costly appliances, in the commencement of their practical careers.—*San Francisco Medical Press.*

The Clinique.

CHICAGO MEDICAL DISPENSARY.

Service, Prof. E. ANDREWS, Attending Surgeon.

Reported for the EXAMINER.

I. *Calculus*.—GENTLEMEN:—The patient before us this morning is to be sounded, for the purpose of ascertaining the presence or absence of a calculus in the bladder. Calculus is a disease which is fortunately quite rare in this vicinity. In certain sections of the country, which appear to be those where the spring-water is most saturated with lime and magnesia, the cases are said to be very numerous. Thus, in Kentucky and Tennessee, great numbers of cases have been reported. In this city, owing, probably, to the fact, that the water of the lake, which is our drink, is almost free from mineral constituents, calculus is so rare, that I have only seen three cases which originated strictly within our borders, and those three were all of them persons who lived on the outskirts of the city, and drank the highly mineralized water of the wells. Of cases found among those who use the lake water, I think it will be discovered in almost every instance, that they had their origin during a residence in some other locality.

A calculus once formed, goes on increasing in size, until, by the irritation caused by its presence as a foreign body, it inflames the bladder, destroys the health, and ultimately produces death. It is of the utmost importance, therefore, that the case be early diagnosed, and the removal of the calculus effected. I do not propose this morning to give the etiology and pathology of the disease, but simply to instruct you in the practical matters of the diagnosis.

The symptoms of a vesical calculus are rational and physical. The former consist of the effects produced on the patient by the presence of the object; the latter of the sounds and sensations which are communicated by contact with an instrument.

The key of the rational symptoms is found by considering that a rough foreign body resting on the delicate lining of the bladder, must cause chronic inflammation. This inflammation is aggravated by everything which causes the stone to shake and roll about, as riding, running, etc. Frequently on such occasions, it becomes severe and acute, and may be accompanied with a little discharge of blood. After the acute inflammation has subsided, the patient is much improved, but still has a chronic irritation, which lasts all through the intervals between his acute attacks. This inflammation differs from the mild chronic irritation of the prostate common among young men, in being generally aggravated by shaking and jolting.

Some tenderness is often felt over the pubis. If the cause of the trouble is not removed, all the symptoms become worse. The inflammation is more continuous and severe; it extends often up the ureters to the kidneys, involving them in permanent disease; the urine is ropy and cloudy, the pain is great, and the exhaustion ultimately fatal. Very early in the disease, one curious symptom generally presents itself, and that is a pain referred by the patient to the glans penis. If the organ be examined, it will be found free from inflammation, showing that the suffering is sympathetic, merely, being referred to the wrong spot, exactly as the pain of the knee is in hip disease. The suffering is such, that the patient often tries to alleviate it by squeezing the glans.

Half-way between the rational and the physical symptoms

may be placed the effects of the calculus on micturition. The patient often finds that the urine, after commencing to flow in a full stream, is suddenly checked by the calculus rolling upon the neck of the bladder, and acting as a valve to the orifice; but after lying down, or shifting in some way the position of the stone, he is enabled to recommence the urination. This symptom is not always present. I have operated upon one severe case, where it had never existed, owing to the calculus being half encysted, so that it was fixed in its position, and did not roll about.

Some patients suffer from incontinence of urine, and in fact, almost the whole catalogue of urinary inconveniences might be added to the list of occasional symptoms.

When several of these signs are distinctly present, you can often make almost a certain diagnosis from the rational symptoms alone, but still there is no absolutely conclusive evidence of the calculus, except, to feel it with the sound, and we will now proceed to apply the test:

The instrument which you here see, is made of polished steel, and is of the exact shape of a catheter, save that it is solid instead of hollow. Indeed, by corking up the extremity of a silver catheter, you may convert it into a perfectly good sound. As the parts around the bladder and urethra are very sore and tender, and as it is important to have perfect quietness for the purpose of a thorough exploration, I have directed the patient be anæsthetized before being brought in. This being accomplished, I will now introduce a catheter, and fill the bladder with water. This is advisable, because the cavity being thus enlarged, your instrument moves about more freely, and enables you to judge better of the size of the stone. Having moderately distended the viscus, I proceed to introduce the sound exactly as I would a catheter. It has now entered the bladder, and I feel the peculiar gritty sensation of a calculus. If you listen carefully while I strike the instrument against it, you will hear a distinct click as of steel against a hard substance. When the calculus is quite small, this clicking sound is very faint, and can only be heard by putting the ear close to the handle. And here, gentlemen,

let me give you a caution about instruments. I have seen sounds made with the handle formed of a separate piece, screwed upon the shaft. Such handles are liable to work loose, and to give a false click themselves. The handle and shaft should be of one piece. To judge of the size of this stone, I move the end of the instrument across it in various directions, and by the amount of motion, endeavor to estimate the diameter. I also put the instrument against it, and toss it about, and thus try to judge of its weight and momentum. For this latter test, a corked silver catheter is better than a solid sound, because, having little weight or momentum of its own, it transmits more clearly to the fingers of the operator, the shock of contact with the calculus. In the present instance, I judge the stone to be a little over an inch in diameter, a size rather above the average, but by no means as great as some which I have seen.

Sometimes a stone is lodged in a sacculated cavity of the walls of the bladder, and it is then said to be encysted. If one extremity projects into the general hollow of the viscus, there is no difficulty in feeling it with the sound; but if it is lodged so deeply as to be covered by folds of membrane, you may not be able to find the orifice of the sacculation, and may thus fail to detect the object. In such cases great care should be exercised to carry the instrument over every part of the vesical walls, and the sounding may be repeated in different positions several times. After all, in rare instances, there may remain a concealed calculus, but as a general rule, if, after two careful and thorough explorations you find nothing, you will be safe in asserting that no calculus is present.

The operation of sounding, is, of course, irritating to the organs; hence, the patient must, after it is over, be directed to keep quiet for a day or two, and if requisite, make use of measures adapted to prevent the occurrence of cystitis.

In the present case, I shall recommend the removal of the stone by operation, and at the time of its performance, will give you full instructions upon that topic.

MARINE HOSPITAL—DR. ISHAM'S SERVICE.

Reported by A. D. ROUSE, Hospital Interne.

I. *Dislocation of Humerus of Fourteen Weeks—Reduction.*—....., æt 26, was admitted into the Marine Hospital, May 25. He showed an old dislocation of the right shoulder, which had been reduced a few days after the reception of the injury, but by mishap had been re-dislocated, and remained so for fourteen weeks. It does not seem that the original dislocation was the same as was presented by the patient on admission. The luxation was downwards and forwards; the tumor of the head of the humerus was presented under the pectoral muscles below the clavicle. The shoulder was not as much deformed as when the dislocation is in the axilla. The motion of the arm was restricted, and there was no possibility of elevating the hand to the head, or of bringing the arm forward without great pain. There was a hollow beneath the acromion caused by the absence of the head of the humerus, and flattening of the deltoid. From the statement of the patient, it was seen that the original injury was a luxation into the axilla, and that this more rare position of the bone was consecutive to the former. The patient had never exercised the limb since the accident, and it had acquired no motion in its new position.

The patient having been prepared, at his request reduction was attempted by the ordinary methods, and the surgeon, Dr. Isham, succeeded first in breaking up the newly formed adhesions, but was unsuccessful in reducing the limb without using more force than he felt justified in; the attempt was then abandoned. At the patient's solicitation, another attempt was subsequently made by the professor, with better success, upon the plan of Malgaigne. The patient was laid in a supine position upon a mattress on the floor, and anæsthesia produced; a folded cloth was placed over the acromion, and the two ends carried to the feet, and held by assistants; an extended band was placed as usual, and the luxated arm slowly and steadily elevated by extension, as much as possible, to

make it parallel to the axis of the body, when more forcible extension was used upwards and backwards, the professor strongly bearing against the head of the bone with his palms, to assist it to regain the glenoid cavity. It gradually moved towards its proper position, to which the extension drew it, and the folds of the axilla presented the hollow which usually separates them; the assistants, at the same time keeping up the extension, were desired to slowly bring down the arm, and approximate it to the body. The head of the humerus was thus returned to its place, and secured by properly applied bandages, which were worn for some time. The shoulder recovered in a great degree its roundness, and the motion of the arm could be executed with facility. Some flatness is yet shown, owing to the wasting of the deltoid.

This method of Malgaigne of making extension with the arm raised up, is the application of a general principle to dispose of the bones in such a manner, that they may overlap each other, and that extension may restore the limb to its lost length.

II. *Operation for Hernia.*—W. G., a native of France, æt 30, of temperate habits, was admitted into the Marine Hospital, June 3d. The patient has been subject to periosteal pains which yielded to the use of iodide of potassium, and was also afflicted with hernia, an oblique inguinal, for which he sought relief. The tumor instantly appeared upon the patient's assuming the erect position, and readily disappeared in the recumbent. The size of the tumor prevented it being easily and perfectly trussed, and the patient requested that something be offered for the complete cure.

Operation, July 20. The patient was placed under the influence of chloroform, and the surgeon, Dr. Isham, with the left index finger, invaginated the scrotum through the inguinal canal, pushing it quite through the internal abdominal ring, secured the invaginated portion of the scrotum in its new position, by passing along the radial and inner borders of the finger, two long needles armed with a bundle of thread sufficiently large to fill up the punctures made, and threaded upon

which, like a bead, was a rounded piece of cork of a proper size to fit into the ring lined by the scrotum. This plug was drawn up and secured, the end of the suture being brought out upon the surface bordering the inner and outer borders of the ring, and tied over a compress. This was suffered to remain for forty hours, with water dressings, when it was removed, and the adhesions were perfect. The scrotum was sustained in a suspensory bandage, and the 22d the patient pronounced cured.

"DRILL FOR AUSCULTATION."—No. 1.

By THOMAS K. CHAMBERS, M. D.,

Censor of the College of Physicians, Physician to St. Mary's Hospital and Lecturer on Medicine at St. Mary's Medical School.

Reprinted from the London Lancet.

In all books about Auscultation the necessity for filling a volume, forces the authors to insert a quantity of extraneous matter, by which the real points are smothered. Students are deterred by the formidable look of the subject. But in reality there is no aid to diagnosis or guide to treatment which requires less scientific study or less special tact in its employment. Shelve your books and study nature. All that is wanted is a certain amount of business-like method, common sense, straightforward eyes, and open ears. Use the following order of drill, and I engage that in three or four days you will be capable of reporting on any case that comes before you—you will have acquired all that is practically useful in the clinical examination of the lungs:—

First Step of Drill.—Look over the whole outside of the chest, and see if there is anything wrong about the *skin* or deformity of *shape*. Note particularly *flatness* or *bulging* of ribs. In males this is quickest done by stripping the upper part of the body all at once. A female's shift is looser, and can be drawn *first backwards* so as to look down the back and sides, *then forwards* to look at the front and sides.

Second Step.—Get behind the patient, put your two thumbs on the top of the two scapulæ, and lay your fingers firm and flat on the collar-bones and upper ribs. Make the patient sigh deeply, and then looking along your fingers you can compare the motion of the two *upper lobes* of the lungs with

one another. If a bright light shines on your finger-nails, you can detect a difference in expansion of one-twentieth of an inch. Then put your thumb-tips on the lowest dorsal vertebra and span the waist as far as you can, make the patient sigh, and you feel the extent of motion of the *lower lobes*.

Third Step.—Percussion—what do you want to find out by it? Only if one part of the pulmonary tissue is more solid than another. Of course it cannot be *all* solid; so if any part is so, it will contain less air, and sound therefore, less drummy, less “resonant” than a more healthy part with which you compare it. Do not think about finding anything else, or you will not pay due attention to this.

Place the patient so that you can lay the fingers of your left hand flat on the thorax. Swing the right hand free and easy, and hammer with your *finger-tips* on your knuckles in the following order:

AUSCULTATION POSTS.

- | | |
|--------------------------|------------------------------------|
| 1. On right clavicle. | 7. Close under right scapula. |
| 2. On left clavicle. | 8. Close under left scapula. |
| 3. Under right clavicle. | 9. Under right mamma (inch below). |
| 4. Under left clavicle. | 10. Under left mamma. |
| 5. Above right scapula. | 11. Right lateral region. |
| 6. Above left scapula. | 12. Left lateral region. |

Do not go on hammering long, but compare by two or three quick strokes each place with the same place on the other side. In all these parts you ought to find the resonance of the two sides equal, except in the left mammary region, where the heart ought to make dull the spot it is felt to beat in.

If you can detect no absence of normal resonance, take a note of it, and go on to next step. But if there be dulness where it ought not to be, percuss round and round the spot where you first find it, and take a note of the *extent of dulness*.

Fourth Step.—Apply your stethoscope *flat to the naked skin*. Apply it to the same post in the same order that you have percussed, and make notes in the same order of what you hear. Do not trust to what you may consider deviations from an ideal standard, but compare the two sides and note if they differ.

Now, as to what you may expect to hear:

Natural Sounds.—Some healthy lungs breathe very softly, some very harshly: so the degree of sound, if equal throughout, tells nothing. Note therefore, only when they are *defective* in any places, while breathing fully elsewhere.

Morbid Sounds.—Think first what your ear *can* tell you, and do not trouble your brains by thinking about what it *cannot*. It can tell you—

(Point 1) Whether air enters the subjacent lung or not ;

(Point 2) Whether it passes through natural, soft, yielding tubes, or through stiffened tubes ;

(Point 3) Whether it bubbles through fluid or not ;

(Point 4) Whether the bubbles are large or small, and therefore whether the open spaces they break in are large or small.

As to Point 1—if no air enters, there is an end of your observation at that spot ; take a note and go on.

As to Point 2—if the tubes and tissues are natural, the sound of expiration is less than the sound of inspiration. If it is equal to it or greater than it at any spot compared with the opposite side, call it “tubular breathing”—that is to say, the air goes through tubes only, and does not enter into the terminal vesicles. The typical example of it is what you hear on each side of the sternum over the large bronchi, and therefore it is often called “bronchial breathing.” Tubular breathing tells you that the tubes are stiffened either by their coats being swelled or hardened, or by the surrounding tissue being condensed.

As to Point 3—air passing through a thickish fluid, like mucus or pus, is sure to make a crackling noise. If it does not do so, if there are continuous whistling, snoring, or piping sounds, they may be safely called “dry” sounds and noted down as “whistling,” “snoring,” or “piping,” without waiting to find a French name for them.

As to Point 4—the size of the crackles is important. The very finest are evidence of their being situated in the terminal vesicles of the lung. Imitate this fine crepitation by rubbing your hair between your fingers, and then make as large a bubble as you can with saliva between your lips, and you hear the types of the two ends of the scale of size. The larger they are, the larger the bronchus or cavity in which the bubbles break.

I said that air passing through the viscid fluid is sure to make a crackling noise, so that the *absence* of crackling proves the absence of fluid. But the *presence* of crackling does not necessarily prove the presence of fluid. Unfortunately animal membranes will make a crackling just as leather does. And the crackling of inflamed pleura exactly resembles the crackling of small bubbles. *The sounds themselves* are indistinguishable. Do not be taken in by persons who profess to dis-

tistinguish them; they do it by collateral circumstances, as you must do. When you hear crackling, put it down in your notebook, and leave the distinction to the future.

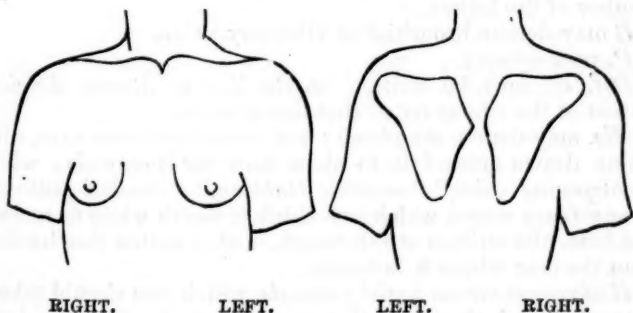
Fifth Step.—Go round again in the same posts with your stethoscope, at each post, making the patient speak a few words of several syllables—such as counting one from twenty. What you have to notice is—(1), whether the voice is heard through the stethoscope at all; (2), if so, whether it is (3) *natural*, that is, a confused sort of buzzing; or (4), *with increased vibration*. In a case where the vibration is increased, notice if it is like a man talking Punch—i.e., *egophonic*; or if, when the patient whispers, you can hear the whispering up the stethoscope—i.e., *whispering pectoriloquy*.

All besides this is fancy work, showy, but waste of time. Even on this real work do not pause too long; the moment you hear a sound, go on to the next post, or you confuse your ear and learn to dawdle.

I will in the next lecture, show you a quick way of taking private notes, and then sketch out a system of estimating the information afforded by what you have heard, and basing a diagnosis upon it.

No. II.

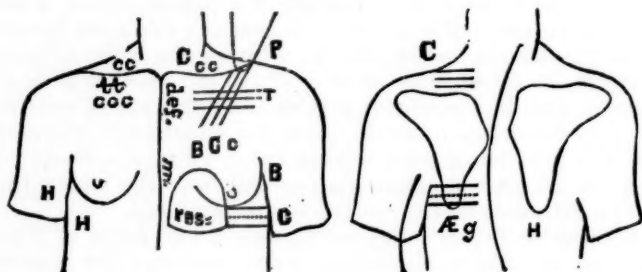
It is a great saving of time in practice to be able to take notes with rapidity. For this purpose I recommend you to acquire the habit of drawing a rough but correct outline of the chest and shoulders, and to have certain marks to record what you have observed. To do it, occupies a quarter of the time of a written description. I make the two outlines which



I show you here on the slate in fifty seconds, and in thirty

seconds more I can mark upon each of the posts of ascultation what I hear by these or any other arbitrary signs.

*Metallic
tinkling Whispering.*



In this sketch the most commonly observed phenomena are recorded by conventional signs, the less common by the first few letters of their names, the still less common by the name written at full length.

A curved line along the spine, (, may denote that the spine is curved to one side or another; and another that there is bulging of the ribs.

Oblique lines, ///, that there is flatness of the chest observed, the first step of the drill.

Parallel lines, ≡, that there is dulness on percussion.

T, or t, that there is tubular breathing; the loudness and depth of tone, being indicated by the size of the letter, showing the size of area it is made in.

C, or c, or cc, that there is crackling, large or small, according to the size of the letter, and extensive according to the number of the letters.

B may denote bronchial or vibratory voice.

P, pectoriloquy.

Def. m. may be written on the line to denote *deficient motion* of the ribs as far as that line extends.

Æg. may denote *ægophony*; res., *unnatural resonance*, with a line drawn around it to show how far it extends; while "whispering voice," "metallic tinkling," "cracked pottery," or any fancy sound which you think it worth while to record, had better be written at full length, with a dotted line leading from the post where it is heard.

H of course means *healthy sounds*, which you should take a note of, though they do not necessarily prove that the lung is healthy. Remember, now and always, that your note records what you hear, not your diagnosis. Thus on the dia-

gram you may see I have noted that in the left infra-clavicular region the ribs are flattened, though the clavicle has not fallen in; that there is a lateral curvature of the spine, with the greatest projection towards the left side; that the ribs on the left side bulge considerably; that there is a deficient motion of both upper and lower lobes of the lungs on the left side; that there is dulness on percussion in the left infra-clavicular, left supra-scapular, and left lateral regions; that the cardiac region is resonant; that there are crackling or crepitant râles in the right supra-clavicular and left supra-clavicular regions; that in the latter these are the larger and coarser; that there are the same râles in greater amount and with small tubular breathing in the right infra-clavicular; that in the left infra-clavicular there is also very loud tubular breathing, large and small crepitant râles, very loud bronchial voice, whispering pectoriloquy, and metallic tinkling; that in the left infra-scapular region there is ægophony; that in the left lateral there is bronchial voice and mixed crepitant râles of various sizes; that the sounds were those of a healthy condition of lung in the right infra-scapular, infra-mammary, and lateral regions.

I need not ask you which mode of record you think will take longest or be most exact.

If you are not quick in drawing with a pen, a further saving of time may be effected by having the outline cut in wood for a few shillings, and stamping it in your case-book when and where required. Or you may have it stamped on thin paper, gummed at the back like a postage stamp, and stick it in when wanted.

Under any circumstances, whether you adopt my method or one of your own, I think it of paramount importance that you should take notes, not of your diagnosis, but of the *ground on which you base it*. It is of no use to yourself, your patient, or to science, to remember that on such a day you thought that there was pneumonia or tubercle, but it is of great use to all to remember why you thought so.

THE SYLVESTER METHOD.—Our British brethren are gradually superseding the ready method of Marshall Hall for restoring suspended animation, by the still simpler and readier one of Dr. SYLVESTER, which is thus given in Heath's *Minor Surgery*: Lay the patient on his back, and having pulled the tongue forward, draw the arms slowly up over the head, by which means the ribs are elevated by the pectoral muscles,

and inspiration is produced; the arms are then to be brought down to the side of the chest, which they are to compress in a slight degree. These movements are to be repeated as slowly as in the other method (the Marshall Hall method), and it is said that they give a more complete charge of air to the lungs.—*Boston Med. and Surg. Journal.*

Selections.

RENUNCIATION OF HOMŒOPATHY.

BY THE LATE EDITOR OF THE NORTH AMERICAN JOURNAL OF HOMŒOPATHY.

To the Editor of the American Medical Times.

SIR:—I wish to put on record in your pages, not only that I have long since resigned all connection with any and every sectarian medical society and publication, but that I now most distinctly do not believe or practise according to any one medical dogma or exclusive system. I have repeatedly been on the point of making this declaration public in some regular medical journal, as it is well known that I have often done in private conversation and in homœopathic periodicals; but frequently the pressing demands of the sick have not left me time, and at other times I have been deterred by the urgent entreaties of friends, backed by that natural repugnance which every one has to publicly acknowledge a change of opinion.

In simple justice to myself, I will beg your indulgence to a short statement of my connection with homœopathy. When a mere school-boy, between twelve and fourteen years of age, and now I am forty-one, I was personally under the care of an aged and accomplished physician, Dr. Freytag, of Bethlehem, Penn. On my return from boarding-school to this my native city, I found many of my nearest relatives under the treatment of Drs. Gram and Gray. Thus, both in Pennsylvania and here, I was early thrown in contact with many and earnest converts to homœopathy. A short time spent in a wholesale drug store, opened my eyes to the immense amount of adulterated, spoiled, and poor drugs and medicines which were then and perhaps are now sold. Not a few of my dearest relatives had not been saved from agonizing death, and some were still suffering with varieties of the most dis-

treassing forms of chronic disease, which had not been averted by all the devotion and skill of many of the most accomplished physicians of the dominant school. I commenced the study of medicine, under the impression, and with the fervent hope that homœopathy, in its future and rational development, would supply all that was deficient in medicine; but all my natural instincts ever have been, and ever will be opposed to all bigoted exclusiveness and one-ideaism in religion, politics, science, and my much-loved profession. As far as lay in my power, I have never been unmindful for a day, from the commencement of my career as a medical student and practitioner, of the numerous and brilliant advances in regular medicine which have been constantly progressing, both in this country and abroad. I must say that I never have been a convert to the use of infinitesimal doses; they have been so repugnant to every fraction of common sense which I possess, that I have always felt absolutely degraded, when making, what I conceived to be, necessary trials with them. I have always felt that I was doing something foolish or wrong when giving them; that I was dealing with quantities so minute and so powerless, that it would be trifling with the lives of my friends and patients to depend upon them in serious cases, and with their time and comfort in milder attacks. I knew full well that Hahnemann had performed all his first cures with tangible doses, and had cited numerous instances from reliable medical authorities, in which, apparently, homœopathic cures had been effected with not unreasonably small doses. I determined to commence where he commenced, and if beaten back to the use of infinitesimal doses, would reluctantly, but at the same time decidedly follow the results of my experience. I have never felt myself obliged to fall back upon infinitesimal doses; but, on the contrary, have been more and more successful in strict proportion as I gradually increased upon the very small quantities which I first used, and in proportion as I departed from a slavish adherence to one system of medicine. The reports of others, both physicians and laymen, frequently led me to make careful trials of infinitesimal doses in various cases, but never with satisfactory success; while many extraordinary instances of recovery from distress and sickness in which no medicine had been given, and numerous consultations to which I was called by homœopathic physicians, in which severe disease had gone on unchecked by these powerless agents, more and more convinced me that they were irrational and unsafe.

A careful study of the *Homœopathic Materia Medica*, early convinced me that it was visionary and unreliable. I labored

long and zealously to do my share towards giving it a more practical and common-sense shape.

The dogma, *similia similibus curantur*, was long a stumbling block to me; it seemed so utterly opposed to reason, that it was often with difficulty that I could force myself to practice according to it. But, many years ago I hit upon an explanation which was, and is still, perfectly satisfactory to me. It is self-evident that, in order to cure any disease, a state *different* from that presented by the disease, must be brought about; hence, a curative drug must either primarily or secondarily exert an *alterative* action; that is, if we leave mere revulsive effects out of the argument for the present. Similarity is not identity, but a similar thing, although it resembles somewhat, or even strongly, also *differs* somewhat, and even greatly. Hence, a drug which acts similarly to the action of any given disease, also differs somewhat in its action, and ultimately may exert an *alterative* effect. Similarity is a hybrid consisting of a great or greater degree of resemblance, coupled with a less or lesser amount of difference; in fact, similarity may be defined as a *slight degree of difference*, quite as well as interpreting it as a great degree of resemblance. Hence, the homœopathic law is *only an apparent and fragmentary truth*, not a complete exhaustive law. It is a fragment of the great law, *differentia differentis curantur*, seu *alterantia alterantiis curantur*, of which in its form the old law, *contraria contrariis curantur*, is another fragment. For opposite or antagonistic things are such as *differ* in the greatest degree; while similar things are merely such as differ in the least, or lesser degree, or in certain particulars; while in others, they may be *essentially different*. Identity excludes the idea of difference, while similarity may include only the idea of casual likeness. Upon these ideas or principles, I have long thought, studied, and practiced, and have gradually become more and more convinced that the homœopathic is only a partially, or even only an apparently true law; a mere fragment of the greater law of alternative antagonistic action which has been practiced upon for ages.

The immense advances which have been made in the regular school in pathological anatomy, diagnosis, microscopical and chemical investigation, in auscultation and percussion, in the use of the speculum and ophthalmoscope, and in the use of ether and chloroform, necessarily force every student of medicine to give the larger portion of his attention to the publications of the dominant school. I have long endeavored to force these tangible, practical, and essential advances upon the attention of the homœopathic school, and labored almost

in vain to convince the fraternity that the healing art is so far from having attained a state of perfection, that no school has a right, wholly, to despise and reject the other, and that a wholly derogatory estimation of every other method than their own, is not a necessary consequence of their adherence to the latter. Hence, I must prefer the greater to the lesser truth, and however painfully and reluctantly, must endeavor to cast my lot with other friends, other theories, and other practice.

But the homœopathists have discovered some new remedies, and renewed the use of many forgotten old ones. If consistent with the object of your periodical, at some future time, I will furnish short articles on the use of *ignatia*, *cocculus*, *pulsatilla*, *agaricus*, *hammemalis*, *cannabis*, *sativa*, *euphrasia*, and other remedies, simply premising that it is not at all necessary to use them in infinitesimal doses, nor always according to the homœopathic law.

Yours, &c.,

J. C. PETERS, M. D.

WARDELL ON ENTERIC FEVER.

Reprinted from *London Lancet* per BRAITHWAITE.

[Of course our readers are aware that, by those who have had most opportunity of judging, fevers are divided into typhus, enteric or typhoid, relapsing, and febricula. The two first are the principal and of most importance. Dr. Wardell published some papers on this subject fourteen years ago, founded on the observation of 1200 cases of fever in the hospitals of Edinburgh. At that time he believed enteric and typhus fever to be the same.]

Enteric fever begins more insidiously than typhus, and much more so than the relapsing. In the latter, the attack is sometimes quite sudden; a person may go to bed comparatively well, and in the morning be seized with shivering, headache, pains in the limbs, and other symptoms. There is less dulness and stupidity in the enteric than in typhus, in which the great nervous centres seem prone to be more readily impressed, as if the poison at once affected animal life. It is quite true, however, that all forms of continued fever in the symptomatology of accession present much in common, and, under an experienced eye, it is often difficult during the first few days, or even until the rash appears, to arrive at a decided

diagnosis. In typhus, the muscular system evinces great prostration, not only at the first, but throughout the disease; as a rule, the patient lies helplessly on his back.

Dr. Jenner has noticed that, in the enteric type, patients have a greater tendency to "get out of bed" than in typhus; the delirium is of a more vivacious kind; they are less easily restrained. In many cases the delirium does not come on until the second or third week; when it does in the first week, it is to be looked upon unfavorably. In typhus it supervenes before the end of the first week, when it increases, and in fatal cases ends in coma. In relapsing fever, there is comparatively little delirium and head complication. On reference to my own account of that disease, in one table giving particulars of 450 cases, leeches were applied to the head, on the average, to 1 in 6-62; in another set of 80 cases, it was a predominating symptom in the small proportion of 1 in 11-42. According to Louis, the brain and its membranes, of those dying of the enteric, rarely present any such marked appearance as might be deemed of potential consequence entering into the causation of death. To those who have had considerable experience in morbid anatomy, it is well known that the encephalic mass gives little explanation of the essential nature of continued fevers. A small amount of subarachnoid and ventricular effusion, a pinkish flush of the cortical substance, or it may be a few puncta in the centrum ovale, constitute often the entirety of morbid phenomena, and I have repeatedly examined this organ when it evinced no lesion. Even coma may not be traced after death. There is no doubt that the views enunciated by the late Dr. Clutterbuck, and those professing similar opinions—regarding fever to consist of inflammation of the brain—led to much mischief in practice, and that a more correct pathology (which is, it cannot be denied, an approach to the once widely-received and then discarded humoral doctrine) has been succeeded by a more successful mode of treatment—viz., that treatment, which, as far as possible, dispenses with depletive measures, which is more expectant and conservative in its aims, and which, by having a just relation to a set of morbid actions not primarily located in any single organ or separate tissue, but pervading the entire organism, opposes asthenia. The late Dr. Alison, whose clinical assistant I was, and whose practice I carefully observed, used to dwell with much emphasis upon the Cullenian maxim of "averting the tendency to death"; and although he did not carry the wine and brandy remedy to the extreme, which, by some, has latterly been advocated, yet, he had long seen, with much sagacity, that acute diseases, and more

especially fevers, had, from some subtle and inexplicable cause become less sthenic in their nature, demanding remedies, which, in previous years, were accounted inapplicable or decidedly prejudicial.

Those organs and surfaces which are of an eliminative, a depurative, or defecating character—those emunctories and outlets whereby the products of organic waste and effete matter are carried off, are precisely those which are most liable to become affected in the progress of fever. That poison, which, by a most rapid multiple, has so vastly increased as to contaminate the whole of the circulating fluid, in obedience to certain vital laws inherent in the organism, by such channels becomes expelled, hence, according to the power of such agent, the excess or defect of function of such organs and surfaces; and thus it is that the skin, the mucous membranes, and the parenchyma of secernant viscera more especially manifest the effects of the specific poison. Ancient theory and every-day facts convince us of those conservative qualities which the system possesses, whereby it essays to eject what it cannot assimilate, and to get rid of such noxious matter as it may have contracted. In the exanthemata, the skin and the mucous membranes of the air-passages are the chief seats of its determinations; in enteric fever, the pustulation is in the digestive tube, mainly in the ileum; in typhus, the mulberry rash evinces an effort made at the superficies to throw off the poison; and in relapsing fever, the powerful diaphoresis which so frequently at once resolves the fever, inculcates the same doctrine. It now being conceded that the three eruptions peculiar to the respective types of continued fever, are as pathognomonic of those varieties as are the eruptions in the exanthemata, properly so called, it would really seem that it is merely an arbitrary distinction on the part of systematizers and compilers of nosology, whereby they are differently arranged. They all have many features in common; they all originate from peculiar morbid poisons, requiring a greater or less period of incubation; they all pass through a certain train of febrile phenomena; and in all the great centres of animal and organic life are in varied degree affected. Again, there are many points of resemblance in the complications which arise, in the demand of treatment, in the sequelæ, and in the phenomena of the fatal issue. If we were to make a hasty comparison between small-pox and spotted typhus, how many characteristics they manifest of a like nature, still unquestionably caused by poisons, with which like only produces like. Both originate from peculiar poisons, are contagious, require a certain period for development, are dis-

eases in which the prime agent specially operates upon and multiplies in the blood; in one the eruption may be looked for on the third, in the other on the sixth day; in both are all the pyrexial symptoms, as a quick circulation, high temperature, furred tongue, anorexia, diminished secretions, and a great impress is made on the nervous system; in each organic complications of the inflammatory kind may arise; there is delirium and often coma. In the one form, death mostly takes place on or about the eleventh day; in the other, rarely till after the twentieth; and both may have sequelæ attacking the same organs and tissues. And similar comparisons might be drawn between any two types taken from continued fevers and the exanthems. Although human reasoning cannot say why it is that in one variety the pustulation is in the intestines, in another in the skin, yet accumulated observations have long shown, that between the skin and the mucous membrane of the digestive tract there is a peculiar sympathy, and that between the enteric and variolous phenomena, many of the fundamental symptoms exemplify no slight or casual features of resemblance.

Dr. Kennedy, of Dublin, in a paper read a few months ago, before the Medical and Chirurgical Society, propounds the doctrine that typhus and typhoid (enteric) are mere varieties originating from the same poison. Dr. Jenner's facts are opposed to this opinion. Of relapsing and typhus I can speak with much certainty. Sixteen years ago I maintained from very elaborate data their distinct essence, and such doctrine still holds good. In more than 1200 cases, I never saw typhus and relapsing blended. The infection caught from one fever never produced the other. Like always produced like in a multitude of instances. I have given in my papers thirty-two cases, in which the two forms succeeded each other within a short space of time. Seventeen out of the thirty-two who had passed through the relapsing, contracted typhus during convalescence, or within the brief period of three months. The proofs of the non-identity of their essential cause were as clear as the common-sense proofs we have, and as practice ever tells us of the non-identity of small-pox and scarlet fever. If typhus differs from the relapsing, why may it not differ from the enteric?

THE general practice of the French Surgeons in the Crimea was to extract foreign bodies from wounds at an early period, whenever they were easily accessible. The most effi-

cient styptics in arresting hemorrhage, where the blood-vessels could not be conveniently tied, were the perchloride and the persulphate of iron. Amputations were generally resorted to in severe injuries of the limbs, and the results were more favorable than when conservative surgery was attempted. Primary amputations were much more successful than secondary.

Book Notices.

LECTURES ON THE DIAGNOSIS AND TREATMENT OF THE PRINCIPAL FORMS OF THE PARALYSIS OF THE LOWER EXTREMITIES.—By E. Brown-Séquard, M. D., F. R. S., etc., etc. Philadelphia: J. B. Lippincott & Co. 1861.

This is the title to a neatly printed volume of 118 pages, embracing four lectures on the nature, diagnosis, and treatment of the various forms of paralysis of the lower extremities. It is an interesting and highly instructive volume, and will abundantly repay the practitioner for its purchase and careful perusal.

The author's *pathology* may be stated in very few words. He regards paralysis as arising from two different and essentially opposite conditions of the spinal cord or central parts of the nervous system. The first condition consists in a *contraction* of the blood-vessels, and consequent diminution of the quantity of blood in the part, with diminished nutrition. This condition he regards as capable of arising from irritation in the extremities of any of the sensitive nerves, whether distributed upon internal or external organs; and hence, he gives to cases originating thus, the name of *reflex* paralysis. The same pathological condition, though more fixed and permanent, exists in those cases, accompanied by *white softening* of the cord.

The second condition productive of paraplegia, consists in a dilated or hyperæmic state of the vessels of the spinal cord, and is met with in two stages, namely, congestion and inflammation.

In regard to the mode by which the supposed contraction

of blood-vessels is produced, and in turn, gives rise to paralysis, the author says:

"As it is now well established that blood-vessels contract with energy, and sometimes even are seized with a real and prolonged spasm, whether by a direct influence of their motor nerves, or through an excitation, which, from some centripetal or excito-motor nerve, has been reflected upon them by the cerebro-spinal axis, there is no need of showing here, that blood-vessels are just like muscles of animal life, as regards their relation with the nervous system. This being the case, it is extremely easy to understand how a paralysis of the lower extremities, as well as that of any other part of the body, may be produced by reflex action. In three different places, a contraction of blood-vessels may cause paraplegia—1, in the spinal cord; 2, in the motor nerves; 3, in muscles.

* * * * *

We think it will now be considered possible, if not probable, that the production of reflex paraplegia is due to a contraction of blood-vessels and to the insufficiency of nutrition that follows this condition of the vessels."—(See pp. 24 and 25.)

The author having traced paraplegia to two distinct and essentially *opposite* pathological conditions, the diagnosis of one of these conditions from the other becomes a matter of great practical importance in reference to the adoption of a rational course of treatment. Hence, he devotes the greater part of his second lecture to this topic, to a perusal of which we must refer the reader, making room only for the following concluding remarks:

"A *reflex* paraplegia is almost sufficiently characterized by the absence of the special symptoms of an organic disease of the spine or its contents, and the existence of an incomplete paralysis of the lower limbs that has appeared somewhat slowly after a disease of the urinary or genital organs, or of some other abdominal viscus; after an inflammation of the lung or pleura, or after some kind of irritation of a nerve in its trunk or cutaneous ramifications. In a great many cases of reflex paraplegia, we shall find nothing else upon which to ground our diagnosis. But usually, in a short time, a much greater probability of the accuracy of the diagnosis will spring from the correspondence between changes in the degree of paralysis with changes in the visceral disease, or external irritation that is supposed to have produced the paraplegia."

The author regarding reflex paraplegia as originating from diminished circulation and nutrition of the spinal cord, or some of its centres, recommends a treatment which may be embraced in the following propositions: 1st. Remove as far as possible the external irritation or local visceral disease from which the disturbance of the spinal circulation originated. 2d. To give such remedial agents as are capable of increasing the circulation in, and nutrition of nerve structures. Concerning remedies for this purpose, the author says: "We know but one remedy that really deserves confidence—it is strychnine." He says it acts in two ways: "1st, in increasing the amount of blood in the spinal cord; 2d, in acting in a special and direct manner on the tissue of the cord. As regards the first mode of action, we will only state here, that it is a positive fact that the quantity of blood circulating in the spinal cord, is very much increased, and that consequently its nutrition also is increased. As regards the second mode of action, the admirable researches of MM. Martin, Magron and Buisson have established beyond doubt, that even when the spinal cord does not contain any blood, strychnine directly applied upon, or in that organ, increases so much its vital property, that reflex tetanic spasms may be produced. * * * We shall insist, by and by, on the importance of making use of strychnine persistently in almost all cases of paraplegia, in which there is no inflammation or no congestion of the spinal cord or its membranes."

The power of strychnine to increase the amount of blood in the cord, and to exalt its reflex power or susceptibility, thereby rendering it one of the most efficient remedies we possess in the reflex or functional paralysis, renders it, not only inapplicable, but positively injurious in all cases dependent on either congestion or inflammation of that organ. Hence, the author very justly dwells with much emphasis on the necessity of making a careful diagnosis in every case of paraplegia. Our own observation has confirmed this necessity. There are no affections treated more empirically than the paralytic. By many, the existence of paralysis, either partial or complete, is sufficient to cause an immediate resort to the use of strychnine,

electricity and kindred excitants, without any clear idea as to the actual pathological condition on which the paralysis depends.

This work of Dr. Brown-Séquard will do much to bring about a more discriminating practice. It is but a few weeks since we were called to see a gentleman who had nearly lost the use of both lower extremities, with impaired action of the bladder and rectum. His pulse was 85 per minute, and firm under the finger; there was tenderness over the lumbar and sacral vertebrae, and not only tenderness in the part, but pressure over the lower part of the sacrum, would uniformly send a thrill like an electric shock through the lower extremities; there was almost complete loss of sensibility in penis, scrotum and perineum, with occasional, painful, spasmodic action of the muscles of the bladder and rectum, but no involuntary discharges; there was a peculiar sensation, as if a ball or hard substance was constantly pressing on the bottom of the feet towards the toes; so much impairment of motion, that the patient could walk only with great difficulty, yet the sensibility of the extremities instead of being impaired, was rather increased, constituting "*soreness* in the flesh." His urine was scanty and bowels moderately costive, yet his appetite was very good, and there was no general feeling of indisposition. The foregoing symptoms had come on gradually, and though plainly indicating an inflammatory condition of a portion of the spinal cord, yet the patient had been taking strychnine during all the preceding week, and as the paralytic symptoms were increasing, he was about to resort to electricity.

In another case of complete paraplegia, coming under our care in the Mercy Hospital, the paralysis had supervened suddenly, and though accompanied by a quiet pulse, increased heat in the extremities, and such an exalted degree of sensibility, that the slightest touch or motion was painful, yet he had been using as remedial agents, both strychnine and electricity. It is hardly necessary to add, that in both these cases the symptoms increased in severity while the use of the strychnine was continued.

The treatment which our author recommends for paraplegia

depending on chronic inflammation or congestion of the spinal cord or its membranes, consists in the avoidance of a dorsal position, the daily use of hot water douches over the spine, dry cupping in the same region, and the internal use of belladonna, ergot of rye, and in those cases accompanied by effusion, the iodide of potassa. In regard to the *modus operandi* of belladonna and ergot, he says:

"Amongst the remedies to be employed internally, the most active are those which have the power of diminishing the congestion of the spinal cord. The two which seem to be most powerful in this respect are *belladonna* and *ergot of rye*. Experiments upon animals have shown to me, in the most positive manner, that these two remedies are powerful excitants of unstripped muscular fibres, in blood-vessels, in the uterus, in the bowels, etc. * * * * Not only have I seen the diminution in the calibre of blood-vessels of the pia mater of the spinal cord taking place in dogs after they had taken large doses of belladonna or ergot of rye, but I have also ascertained that the reflex power of the spinal cord (most likely as a consequence of the contraction of blood-vessels) becomes very much diminished under the influence of these two remedies, which, in so doing, act just in the opposite way to that of strychnine."

Again he says: "Led by the knowledge of the above facts, we have employed belladonna and ergot of rye in cases of paraplegia due to a simple congestion or a chronic inflammation of the spinal cord and its meninges, and we have obtained a greater success than we had dared to hope for."

We have found so much of interest in this little volume, that our notice has already extended much farther than we intended. We cannot too strongly recommend it to the profession. For several years past, we have not only acted on the supposition, that paralysis might arise from the two opposite pathological conditions of the brain and spinal cord described by M. Brown-Séquard, but also, that cases are occasionally met with from loss of susceptibility in the *muscles* of the paralyzed part, without any morbid condition of the spinal cord or other nerve-centres. And we are not sure, but a number of cases, ranked by the author just named, as cases of reflex paraplegia, are really such as have the pathological lesion primarily in the muscular instead of the nerve structure.

NEW PERIODICAL.—We have received the first number of the *Buffalo Medical and Surgical Journal and Reporter*, edited by JULIUS F. MINER, M. D., Surgeon to Buffalo General Hospital. Its editor “desires to say that he is looking to the profession for the means of success in the undertaking, and will not allow himself alone to be held responsible for its success or failure, since he is depending not so much upon his own exertions as the assistance he expects to receive from others. He enters upon the duty stimulated by the hope and expectation of so complete success, as soon to justify the enlargement of the *Journal*, rendering it more acceptable and useful than it can possibly become in its present restricted limits.”

We welcome the *Journal and Reporter* to our exchange list, and trust its “hope and expectation” may be fully and speedily realized.

THE LANCET for September is at hand, with the first of a course of lectures on PAIN, and the *Therapeutic Influence of Mechanical and Physiological Rest in Accidents and Surgical Diseases*, by JOHN HILTON, Esq., F. R. S., before the Royal College of Surgeons. The usual variety of interesting papers, etc., fills the number, making the *Lancet* one of our most valued exchanges.

ADDRESSES, REPORTS, ETC.—Dr. ASHBEL WOODWARD's annual address, as President of the Connecticut Medical Society, delivered at the convention of that body in May last, is an exceedingly practical essay on the comprehensive topic—*Life*. We have marked passages for reprint, which illustrate the speaker's axiomatic strength of style and treatment of his subject.

—THE *Communications of the Rhode Island Medical Society*, for 1861, are made up of half a dozen papers from its members, the most interesting of which is a *Letter on Some Points of Military Surgery*, by the venerable USHER PARSONS, M. D., of Providence. The use of the chlorate of potassa in phagædenic ulcerations, with cases illustrative, is detailed by W. OWEN BROWN, M. D. The salt is applied in solution, of vary-

ing strength, according to the severity of the ulceration—in one very threatening case of vulvitis, the salt in powder was freely sprinkled upon the diseased parts; and in ordinary stomatitis, Dr. Brown uses the chlorate, either in solution or intimately mixed with powdered sugar, and with the effect of arresting the ulcerative process very promptly.

“Weedon Cooke, Esq., Surgeon to the Royal Free Hospital, says: “It is invaluable in foul chronic ulcers of the legs; in tertiary sores not of an inflammatory character; in ulcers of the mouth and tongue, arising either from syphilis, or cancer, or *cancerum oris*, or necrosis of the jaws; and especially so in cleansing and deodorizing, and indeed, healing many parts of the body. I have employed it in all these lesions at the Cancer and the Royal Free Hospital, and am daily reminded of its estimable benefit wherever there is an absence of active inflammation.”

—THE subject of medical education occupied a large share of the *Transactions of the Indiana State Medical Society* at its annual meeting in May last, at Indianapolis. The address of the President—Dr. B. S. WOODWORTH, of Ft. Wayne—touching the effects of a higher system of medical education and kindred topics, is an out-spoken, sensible effort, abounding in what country folks call “horse-sense”—calling a quack a quack, without indulging in any oily enphuisms, with which to soothe the tender sensibilities of men who defile their Alma Mater and disgrace their cloth by charlatanry and trickery. The committee on the subject of medical education—JAS. F. HIBBARD, M. D., chairman—present an elaborate plan for the remodeling of the present system.

Editorial.

THE CHICAGO MEDICAL JOURNAL AND LIND UNIVERSITY.—After three months delay, the June and July numbers of the *Chicago Medical Journal* (consolidated into one) have come to hand. In glancing over their pages, we find the following paragraph, which is not only inexcusably *mean* in its intended

bearing on the University, but is also destitute of even the semblance of truth:

"Most of our readers may have heard of the Lind University, and the great medical reform department, established by Mr. Lind, with worthy co-operators. The following extracts from the *Chicago Daily Tribune*, of Thursday, June the 27th, 1861, exhibit a few only of the facts which the public ought to know, concerning the source of the funds with which Mr. Lind may have been able to reform and convert the world medical and non-medical: "It is only a matter of common fairness to state that the diversion and misappropriation (of the city funds) are laid solely to the act of *its* treasurer, Sylvester Lind." "It is not a pleasant reflection that a man who could endow a sectarian institution of learning to the amount of \$100,000, should, by his official misconduct, cause the *indefinite suspension of our public schools*."

A careful reading of this paragraph will show that it fairly implies the following propositions:

1st. That Sylvester Lind was the chief agent in establishing the Medical Department of the Lind University.

2d. That he endowed the University with \$100,000, and derived the *means for doing it from the city funds*, entrusted to him as *its treasurer*.

3d. That such perversion of the public funds had caused the indefinite suspension of our public schools.

Were it not for those readers of medical journals abroad, it would be unnecessary to take any notice of statements which are so well known here to be entirely false in every particular. Mr. Lind had nothing to do with the establishment of the Medical Department of the Lind University, except to *rent* a part of a block of buildings for its occupancy, for which he was paid a fair rental annually. He never actually endowed any department of the University with a single dollar, and consequently, never used any city funds for that purpose. Years ago, before Mr. Lind had anything to do with the public funds of the city, he *offered* to endow the Theological Department of the University with \$100,000, on certain conditions. Those conditions could not be complied with by the Board of Trustees, and consequently the offer was never carried into effect.

The third proposition, that Mr. Lind's default had caused the "indefinite suspension of our public schools," is too ridiculous, even for a sensation paragraph in a newspaper.

The truth is, Mr. Lind never had a dollar of the city school funds in his hands, or any funds that could in any way influence the public schools. He was simply Treasurer of the Board of Sewerage Commissioners, and all the money in his control was for *sewerage purposes*, and in nowise connected with schools, either public or private. All these facts were well known to the editors of the *Chicago Medical Journal*, when they inserted the above paragraph; and hence, they could have had no other motive than the hope of perverting the delinquencies of an individual to the discredit and injury of a public educational institution. The friends of the Lind University, and of the course of education generally, may rest assured that the failure of Mr. Sylvester Lind, does not in any degree, affect the prosperity of that or any other educational institution. The University and the public schools of the city, are as active, prosperous, and useful to-day, as at any time in their history.

CHANGES IN MEDICAL COLLEGES IN THIS CITY.—The extensive military organizations and movements, going on in every part of the country, leave but few institutions unaffected. They have caused, at least, temporary changes in the faculties of both the medical colleges of this city. M. K. TAYLOR, M. D., Prof. of Pathology and Public Hygiene, and H. WARDNER, M. D., Demonstrator of Anatomy, have both accepted appointments, and are doing duty as surgeons in the volunteer regiments of this State. Their places in the Medical Department of the Lind University, have been *temporarily* filled in such a manner, as to prevent the omission of a single lecture from the regular course of instructions. The full course on Pathology will be given by the Professor of Practical Medicine, and J. S. JEWELL, M. D., will fill the place of Dr. Wardner, as Demonstrator.

From the faculty of the Rush Medical College, we learn that J. V. Z. BLANEY, M. D., Prof. of Chemistry, and J. W.

FREER, M. D., Prof. of Surgical Anatomy and Microscopy, have been appointed Brigade Surgeons, and E. POWELL, M. D., Demonstrator of Anatomy, has accepted the post of Regimental Surgeon, and is already on duty. Dr. Powell's place in the college will be temporarily supplied by I. P. LYNN, M. D., aided by the Professor of Anatomy.

What provisions will be made for the courses of Professors Blaney and Freer, we do not know, and we think the matter, at this date, Sept. 1, is not definitely determined.

PERSONAL.—J. H. DOUGLAS, M. D., editor of the *Am. Med. Monthly*, having been appointed on the *Sanitary Commission*, L. ELSBERG, M. D., editor of the foreign department of the *Monthly*, succeeds him in the control. Dr. E. is an impartial, able and scholarly writer, and the *American* will lose none of its well-earned reputation in his hands. . . . Drs. PRINCE, FREER, BLANEY, RAUCH, HAVEN and SIM have been appointed Brigade Surgeons, in the Federal army, from this State. Dr. Blaney is assigned to General Hunter's Division, Drs. Freer, Sim and Rauch go to Washington, and the remainder are not yet assigned. . . . Dr. W. H. DAVIS, of Paris, has been appointed Regimental Surgeon, and his place on the Board of Medical Examiners is filled by Dr. GREEN, of Salem. The Board still holds daily sessions in this city, but will adjourn to Springfield on the 16th. They have passed, since our last, eighteen additional surgeons and twenty-six assistant-surgeons—making in all, forty-two of the former, and fifty-one of the latter grade passed. . . . Dr. R. M. HODGES, of Boston, a surgeon of promise, and a skilful anatomist, has received the Boylston Medical Prize for 1861, for the best dissertation on *Excision of the Joints*. . . . HORACE G. SPAFFORD, Esq., Professor of Medical Jurisprudence in the Medical Department Lind University, was married in this city, on the 5th inst., to Miss ANNIE LARSON.

RENUNCIATIONS OF HOMŒOPATHY.—Under the head of selections in this number of the EXAMINER, will be found a letter from JOHN C. PETERS, M. D., of New York, for several years a prominent homœopathic practitioner and editor of the lead-

ing homœopathic journal in this country, formally renouncing all further connection with that pretended *system* of medicine. In the *American Medical Times*, for August 31st, we find a declaration, renouncing their further adhesion to homœopathy, signed by Ed. P. Fowler, M. D., Wm. Faulkner Browne, M. D., and Wm. O. McDonald, M. D., all heretofore well known as homœopathic practitioners in the city of New York. A similar declaration from most of the little-pill fraternity in this city, would bring their *professions* and *practice* more nearly into correspondence.

FURTHER EXPERIMENTS WITH KEROSOLENE.—In the absence of a report from the committee appointed at the July meeting of the Cook County Medical Society, to investigate the properties and actions of the new anæsthetic, kerosolene, it may be as well to put on record one or two of the experiments made with this agent on the lower animals, by the junior editor of the EXAMINER.

Expt. I. A full-grown, healthy doe rabbit was subjected to the influence of the vapor, administered on a cotton cloth. After inhaling about two minutes, during which the respiration became hurried and convulsive, the animal screamed loudly and continuously for more than a minute, followed by violent struggling, which, at the end of the fifth minute (the inhalation meanwhile continued), gave place to rapid involuntary motion of the fore-legs. The animal was now laid on its side, and the inhalation suspended, but the involuntary motion of the fore-legs was continued, the posterior extremities lying relaxed. At the end of the eighth minute (the second of the intermission), the involuntary motions had given way to attempts to regain its feet; breathing natural, though a little hurried, and vapor again exhibited. The struggling was at once renewed, followed by strong, clonic spasms of the extremities, varied by the rapid movements of the fore-paws, during which the hind-legs were rigidly extended; to this succeeded violent shivering of the whole body, respiration very quick and labored, eye-balls protruded. At the end of the twelfth minute, sensibility was yet perfect, the prick of a scalpel being instantly responded to. The animal now lying prone, the cloth was placed close under its nostrils, and two drachms of the fluid poured on, care being taken that it did not touch the nostrils. The irregular convulsive movements were again renewed, intermitting to fits of shivering, after one of

which the trunk was flexed backwards (opisthotonos), extremities extended and respiration ceased. On opening the thorax, ten minutes afterwards, the right auricle was found immensely distended, and still strongly pulsating, pulmonary arteries congested, and the other usual symptoms of asphyxia. The inhalation was continued nearly fifteen minutes, with about two minutes intermission, and at no time was there any anæsthesia.

Expt. II. A full-grown, young male rabbit was subjected to the vapor, by pouring half an ounce of the liquid into a common tumbler, into the upper part of which pussy's head was confined. For the first five minutes the phenomena were similar to those in the first experiment; but while struggling, his head was so far released as to allow him to lap up, probably, half a drachm of the fluid. Violent shivering fits at once supervened, followed by entire muscular relaxation, from which (the vapor being withdrawn), he recovered in four or five minutes, eating and running with perfect freedom. No anæsthesia.

Expt. III. The same rabbit, one week afterwards, was again treated to the vapor from the tumbler. Phenomena almost identical with those of No. I., death occurring in about fourteen minutes, with no intermission of the supply of vapor. Post-mortem revealed the usual symptoms of asphyxia. The blood coagulated very slowly in both instances. Ten drachms of kerosolene were used in the first, and not quite an ounce in the last experiment. Anæsthesia was not produced in either case, at any time before death.

MILITARY HOSPITAL TREATMENT OF GONORRHOEA.—The statement that "venereal cases constitute at least, one-third of the admissions into military hospitals," will, undoubtedly, suffer a large discount, when applied to the volunteer service,—for obvious reasons. And yet the frequent occurrence of "the transitory penalty of social indiscretion" among our troops, and the consequent annoyance, to say nothing of the disastrous possibilities, of crowded hospitals and weakened regiments, renders pertinent and valuable, at this time, the publication of any approved plan of treatment, even though obnoxious to the charge of gratifying "an unwholesome love of novelty."

Assistant-Surgeon MILES, M. R. C. S. L., etc., in Medical Charge, at Halifax, N. S., contributes a paper to the current No., *London Lancet*, detailing a plan of treatment, whose success he has abundantly tested for eighteen months, and in

some sixty cases; and for which he claims that, whilst it is scarcely open to an objection, it offers at once a speedy and effectual mode of cure, returns the soldier's name to the list of "effectives for duty," in the shortest practicable time, is the best suited for soldiers, and is least open to tampering and deceit. After establishing a soluble condition of the bowels, in a case marked by the usual symptoms: penis swollen and glans cherry-colored, tender, and looking excoriated; lips of orifice of urethra puffy; with an abundant, thick, slightly yellowish discharge; urine scanty, and the stream forked and painful in its passage, a blister, six inches by four, is ordered to be placed very high up towards the anterior and inner aspect of each thigh. The blisters are of the London Pharmacopœia, the plaster being spread rather thickly, and the surface afterwards sprinkled with acetate of cantharides, a wide margin being left on each side, of the blister. These are safely confined in place by a broad strip of adhesive plaster at each end. For convenience the blisters are generally directed to be applied at night, and no harm has ever come of it, and usually they are well risen by the morning. The patient is then ordered to take every four hours an ounce of the following mixture:—sulphate of magnesia, two ounces; carbonate of magnesia, four drachms; potassio-tartrate of antimony, two grains; tincture of hyoscyamus, two drachms; peppermint water, sixteen ounces. He is placed on spoon diet, with rice pudding for dinner, and a pint of imperial drink should he be thirsty. During the day he is directed to inject now and then a syringeful of cold or lukewarm water, according to the temperature and season of the year. The blistered surface to be dressed with lint dipped in castor oil (a favorite dressing with the men).

The immediate effect is not uniform,—in some cases the discharge is increased, with more scalding; in others, discharge is less, but thicker; in still others it ceases at once; the usual result is an aggravation of the symptoms for the first twenty-four hours; the only thing required, however, is a little patience combined with perfect rest, and these symptoms rapidly subside. The saline purgative is to be continued, and the patient is ordered half an ounce of gum arabic to be mixed with water, and used as a drink, whenever required, the imperial drink being continued if asked for. On the third morning after the application of the blisters, the discharge is noticed to be much diminished in quantity, the scalding in micturition is less, and the patient feels better. On the fourth day scarcely any discharge, and there is now no scalding. The blistered surfaces look raw, but are beginning to "skin," as

the men say. The saline purgative to be now given only three times a day. The next day perhaps there is a little running when the penis is squeezed, but no other symptom; his bowels are well open. To take the saline purgative (two ounces) every morning, and an injection of nitrate of silver, (six grains to the ounce) to be used at night. Sixth day: Blistered places skinned, though not firmly, and the surfaces are not sore. No sign of running is visible to-day, but there is an appearance as if of weeping at the lips of the urethra. Seventh day: No sign of discharge, the thighs have completely cicatrized, and the surface where they were blistered, is not the least tender. The man is discharged for duty, with one day's convalescent leave. This, though a suppositious case, illustrates the sort of treatment adopted. But a more favorable case than the above will happen. A lad may come the morning after the discharge appears, and in the early stage of the complaint very mild inflammatory symptoms are present. He is of temperate habits. In such a case, all that may be required are, rest and low diet, the saline purgative mixture, and as a local remedy, a small blister applied to the under surface of the penis. The blister should be about an inch wide, and from an inch to an inch and a half long, and be carefully fastened on by oiled threads. It is well to fasten a suspensory bandage, with some extra linen covering over the scrotum, so as to prevent the chance of vesicating it. If the blister rises properly, in a simple case of gonorrhœa taken thus early, I have had repeated instances of immediate cure by a single application, the discharge having completely ceased, with no recurrence at a subsequent period. In such a case, the blistered surface has healed (it is surprising the rapidity with which it does so on this spot), and the man has been discharged for duty on the fourth morning after admission.

THE SURGEONS OF THE NEW YORK EIGHTH.—The Washington correspondent of the *N. Y. Times*—a secular paper, which, alone of the hundreds published in the United States, gives to the profession a courteous attention and consideration,—speaks in the following glowing terms of the conduct of Surgeons FOSTER SWIFT and CHARLES DE GRAW, of the Eighth Regiment N. Y. S. M., at the battle of Bull Run. What these gentlemen did was no more than their duty, to be sure, and no more than did Buckstone, Allen and Williams, of Maine, Norvell, Powell, Winston, Griswold, Peugnet, Ferguson, Harris, Homeston and Swalm, of New York, Taylor, of New Jersey, Lewis, of Wisconsin, Stewart, of Minne-

sota, and Steinberg and Grey, of the regular army, on the same occasion; and no more, we firmly believe, than every medical man—who goes forth from the comforts and emoluments of a civil practice, with its unquestioned position and privileges, to the hardships, dangers and exigencies, the petty pay, the dubious rank and limited authority of military service,—will be ready and prompt to do. The quality of heroism demanded for such service must be higher than that of the mere combatant;—since to it there are none of the usual stimuli which attend martial life, robbing privation, and fatigue and danger of their worst features. The wild enthusiasm of the battle-shock must be sternly repressed by the surgeon who would do his duty calmly and fully; danger, suffering and death, in their most terrible and repulsive forms surround him; yet, his heart must not shrink, nor his nerve falter. No special mention is made in “Official Reports,”—no brevets on the field for meritorious conduct,—no incentive of promotion to nerve and sustain him. Are we not justified, then, in reprinting such unusual recognition of the usual conduct of our professional brethren?—

We have enough of buncombe receptions, but of real approbation of true heroism, how much do we see?

Two men return to New York to-night who are, in the truest use of the word, heroes. These are the surgeons of the Eighth New York Regiment, whose officers deserted in many cases before coming under fire. They were in the Sudley Church; they arrived at it amid the hottest rush of the mad panic, but stopped to aid in taking care of the wounded, who had been placed in it. They were warned that the enemy were approaching; they heard the cry that the enemy were bayoneting the wounded, and giving no quarter; they were advised to leave by a United States officer, who told them the enemy would undoubtedly shell the church on the supposition that it would be held as a defensive position as long as possible, by our troops covering the retreat. This conviction was so strong with those who left last, as you will remember, that it was generally reported the church was shelled. But these surgeons said, simply, “*We cannot leave these bleeding men; it is our business to take care of them, and take care of them we must, no matter what becomes of us.*” They unquestionably made up their minds to die, and momentarily expected the falling of the first shell among them, until, while in the midst of an amputation, there was a rush of cavalry, and a horseman’s pistol was pushed in at the door, and a hoarse voice asked, “Do you surrender?”

“Certainly,” answered Swift, tying an artery, and not so much as raising his head from his business.

Would to God we had a few score such men as captains, and would to God we had a general who would blow from the cannon's mouth such sham officers as those who played soldier with the Fire Zouaves and the Eighth.

SUCCESSFUL OPERATION FOR DOUBLE CONGENITAL CATARACT AT THE AGE OF EIGHTEEN.—Dr. Welsh translates for the *Boston Med. and Surg. Journal*, the correspondence of A. M. CADE, M. D., with the *Bull. Gén. de Thérap. Méd.*, in which he details a successful operation for double congenital cataract, of eighteen years duration. The operation was by depresso-reclination, as M. CADE terms a mixed procedure, by which, before tipping the lens into the inferior and external part of the vitreous humor, it is depressed vertically until a semilunar opening appears in the upper fifth of the pupil; thus preventing, during the displacement of the cataract, both the falling of the lens into the anterior chambers, and the too immediate compression of the retina or choroid coat. On the eighth day the left eye was completely cured, and the right only occasionally obstructed by the still floating unabsorbed cataract. This, however, would doubtless be promptly absorbed.

In addition to the rarity of operations for congenital cataract after the age of puberty, we quote the case partially for the interesting phenomena resultant on the sudden acquisition of vision after eighteen years blindness. M. CADE says:

The first sensation of light produced so lively a sensation, that the eyes were seized with convulsive movements, and it was only after having established twilight in the room, and after numerous oscillations, that the globes of the eyes maintained their equilibrium. When the organs of vision were accustomed to the light, I attempted some experiments and observed the following facts: when an object is presented to Mdle. Louise, she can neither appreciate its form or color; she is obliged to touch it, to tell its name or use. The laws of visual accommodation are lost for her; thus, she judges distances so inaccurately, that she constantly places her hand beyond the objects she wishes to grasp. Besides, this young lady has been so in the habit of using the sense of touch to supply that of sight, that, after having the name of an object pointed out to her, she feels the need of taking hold of it and manipulating it in every direction, so as to fix the form of it as well as its other characteristics in her memory. When an object has been presented to this double inspection, it remains impressed on the memory, and Mdle. Louise can name it by the exclusive use of her eyes, even four or five days after a first trial.

1861.] **MEDICAL DEPARTMENT** [1862.
OF
LIND UNIVERSITY, CHICAGO.

The third ANNUAL COURSE OF LECTURES in this Institution, will commence on the

SECOND MONDAY IN OCTOBER,

And will continue until the first Tuesday in March, following.

FEES:

Lecture Fees for the Winter Term, - - - - -	\$50 00
Graduation Fee, - - - - -	20 00
Matriculation Fee, - - - - -	5 00
Dissecting Ticket, - - - - -	5 00
Hospital Ticket, - - - - -	6 00

All Fees are payable in advance.

MEDICAL FACULTY:

- DAVID RUTTER, M. D., Emeritus Professor of Obstetrics and Diseases of Women.
T. DEVILLE, M. D., Emeritus Professor of Anatomy.
J. H. HOLLISTER, M. D., Professor of Descriptive Anatomy.
H. A. JOHNSON, M. D., Professor of Physiology and Histology.
A. L. MCARTHUR, M. D., Professor of Materia Medica and Therapeutics.
M. K. TAYLOR, M. D., Professor of General Pathology and Public Hygiene.
F. MAHLA, Ph. D., Professor of Inorganic Chemistry.
E. ANDREWS, M. D., Professor of Principles and Practice of Surgery, and of Clinical Surgery.
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